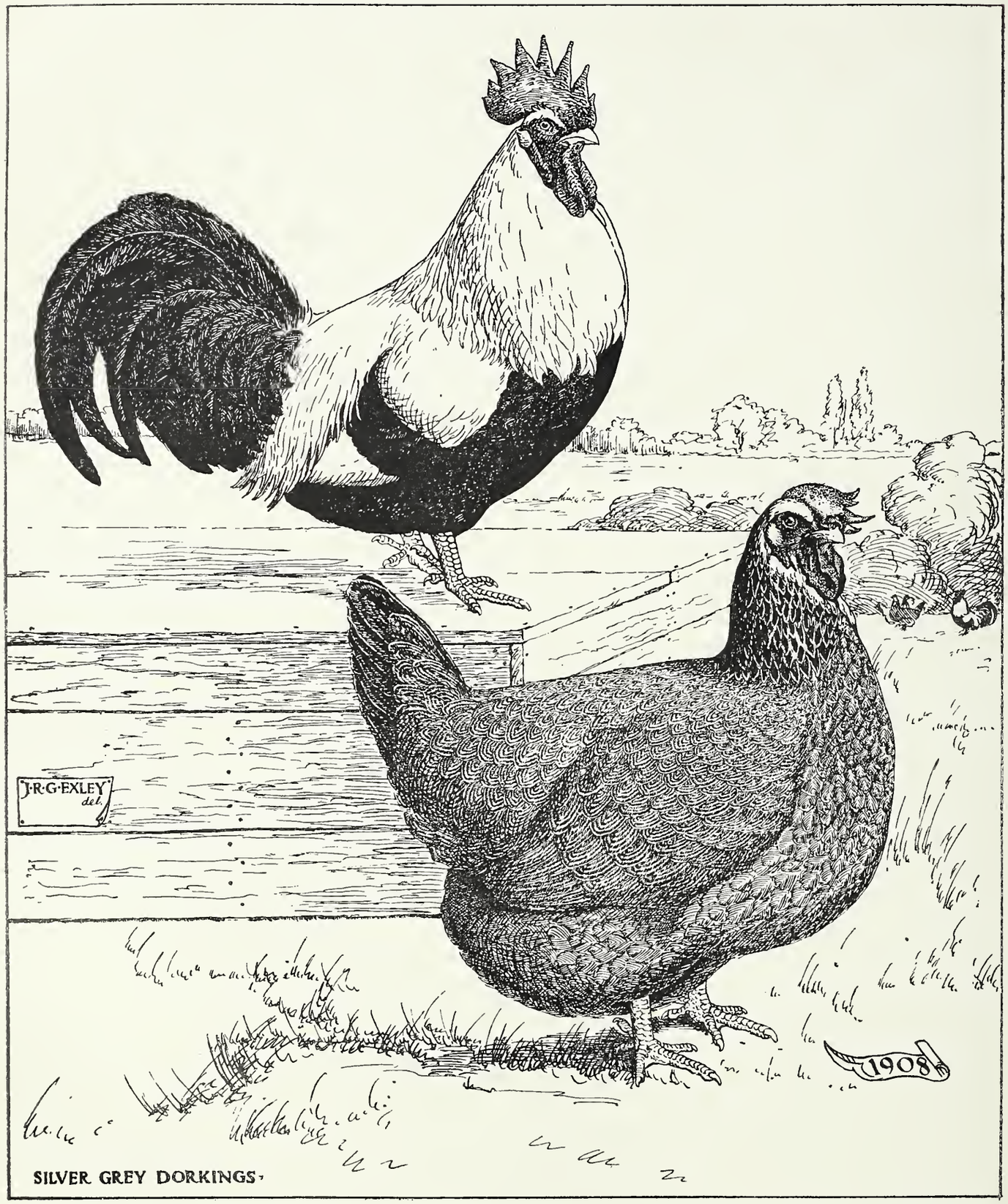
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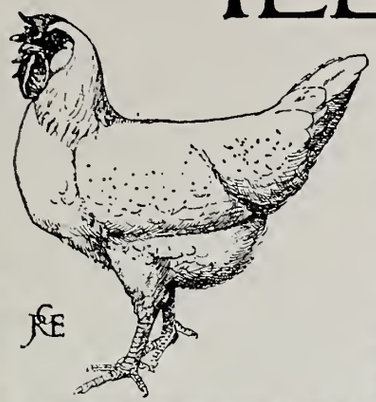
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THE FIRST PRIZE DRAWING IN OUR £5 5s. COMPETITION.

THE ILLUSTRATED POULTRY RECORD





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DIARY OF THE MONTH.

EDITORIAL NOTICES.

Telegrams: "CHICKENDOM." Telephone: 1999 P.O. CITY.

The Editor will be glad to consider any MSS., photographs, or sketches submitted to him, but they should be accompanied by stamped addressed envelopes for return if unsuitable. In case of loss or injury he cannot hold himself responsible for MSS., photographs, or sketches, and publication in THE ILLUSTRATED POULTRY RECORD can alone be taken as evidence of acceptance. The name and address of the owner should be placed on the back of all pictures and MSS. All rights of reproduction and translation are reserved.

The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered by experts in the several departments. The desire is to help those who are in any difficulty regarding the management of their poultry and accordingly no charge for answering such queries is made.

The Annual Subscription to THE ILLUSTRATED POULTRY RECORD at home and abroad is 8s., including postage, except to Canada, in which case it is 7s. Cheques and P.O.O. should be made payable to Brown, Dobson, and Co., Limited.

THE ILLUSTRATED POULTRY RECORD is published on the first of every month. Should readers experience any difficulty in securing their copies promptly they are requested to communicate immediately with the Editor.

The Work of the Poultry Club.

At several recent meetings of the Poultry Club Council important matters of business have been left over until the next meeting through lack of time, and though exceptional circumstances connected with the hearing of a number of important charges against fanciers have of late taken up a great deal of the Council's time and attention, it is becoming obvious that the meetings must either be held more frequently or the sessions must be protracted. At the present time the meetings commence at 2 p.m. and are adjourned not later than 5.30 or 6 p.m., so that members from the country are able to leave home in the morning and get back again the same night. The interests of those members of the Council living at a distance need to be considered, since it is undesirable that the Poultry Club should become the monopoly of the London members, but apparently, if more meetings are to be held or the present sessions extended, many country members of the Council and country delegates will be unable to attend unless travelling allowances are granted to cover expenses. The club is sufficiently wealthy to consider this important matter from the point of view of what is best for the members; but as it has recently become apparent that the influence of the club for good is gaining strength month by month and its business is growing at the same rate, some means will have to be found of dealing promptly with it. There have already been some complaints regarding what some people are pleased to call the lethargic habits of the Council. Fanciers have, for instance, been kept too much in the dark concerning the club's intention with regard to the marking question, inattention to which may, no doubt, be attributed to the mass of matter of another kind that has engaged the Council's attention.

Specialist Club Year-Books.

Many of the specialist clubs are busily engaged in preparing their year-books for 1909, some of which will be published in a few days. Many of these are of a high standard of merit, particularly the books issued by some of the Wyandotte clubs. The White Wyandotte naturally lends itself to photographic reproduction, and the club which looks after its interests has led the way in artistically illustrated year-books, whilst the United and Black Clubs are now following suit, and the Partridge Club has set a new fashion in coloured plates and has always made a strong feature of its reading matter. That these publications serve a very useful purpose, both in interesting the members and in attracting new supporters, no one can doubt, and it is somewhat strange to find that several wealthy clubs connected with other breeds issue nothing but a few pages containing a statement of accounts, list of members, rules, and balance-sheet. The members of these clubs must conclude that they get a comparatively poor return for their money, and, if only for the purpose of interesting the amateurs and the rank and file of a club, one would welcome the publication of a more or less pretentious little annual.

Booming New Varieties.

The methods of popularising new varieties, that found favour a few years ago, were mild and harmless compared with those adopted at the present day. Indeed, the modern style is so obviously extravagant that we surmise the doom of the boom is already sealed, so lightly veiled have been many of the attempts to extort money from the guileless novice. Apparently the latter has none but himself to blame if he is so foolish as to fall into the trap so skilfully laid for him and tumbles so readily to the conclusion that the road to wealth is through a more or less visionary new variety. Just at the present time the rage is for blue-plumaged varieties. There are two already upon the market, and fanciers of two or three years' standing are uttering the most extravagant predictions about their prospects, quite oblivious of the fact that blue is one of the most difficult colours to produce and fix, and that on account of these difficulties and the large proportion of sports that are inevitable a blue variety can never become permanently popular among the rank and file of breeders. But the truth is that in this case it serves its purpose, being comparatively novel, by attracting the sharps and the flats, who are invariably attracted by a boom. It is full time, however, that amateurs and novices should be strongly warned against putting their trust in new and unfixed varieties when there are so many excellent standard breeds already in existence.

Correspondents Beware.

Every successful poultry keeper knows something of the burden of correspondence and has experienced what it means to have letters from absolutely unknown individuals, asking a multitude of questions and, more often than not, forgetting to enclose a stamped envelope for reply. It is one of the penalties of publicity and success. The time lost in replying to querists is often a very serious part of the day's work, which ought to have been devoted to more profitable tasks. There can be no question that poultry keepers are long-suffering in this respect, patient to an extreme. Many correspondents transgress all sense of reason in the number and nature of the questions they ask from people upon whom they have no claim and who have their own living to make. We have no wish to discourage that spirit of kindly generosity which leads poultry keepers to help others, for it has done much for the extension of the industry, to the gain of all. But there is a limit to it. Some time ago a letter was shown to us, which had been received by a well-known poultry breeder from someone of whom he had never heard previously and who was certainly not at all apologetic for the trouble he was giving, much less thought it necessary to enclose a stamp for reply. The questions in this would have needed a day's work to have dealt with. That sort of thing is beyond all reason and has the effect of causing poultrymen to decline to give even that assistance and advice that are within their power and inclination.

The Williams Sexophone.

Many and varied have been the theories promulgated from the time of Aristotle onwards with a view to foretelling the sex of eggs. But in practical application these have failed to stand the test of experience. Whether we are any nearer a solution of this complex problem remains to be proved. The latest effort in this direction is that of Mr. A. W. Williams, a civil engineer, who claims that by means of a pith ball suspended at the end of a piece of magnetised and copper wire, with a wooden handle, he can state the sex of any animal, and that he can thus tell the sex of an egg. When a male is beneath, so it is stated, the pith ball rotates steadily in a circle, and when a female it swings perpendicularly. A demonstration was recently given at the Hotel Cecil which was remarkably successful in the case of rabbits, mice and dogs. The pith ball moved distinctly as described above when eggs were tried, but with them the final result could not then be determined. A much more complete experiment is now being carried out both with eggs and chickens, which are now under observation at a leading poultry farm, to

be reported upon as soon as the sex can be absolutely determined. Mr. Williams is deeply interested in poultry, and if his invention enables breeders to select eggs with even a measure of certainty, he will have rendered an enormous service to the poultry industry. At present it is a question of curiosity rather than of faith.

The Royal Commission on Tuberculosis.

The third interim report of the Royal Commission appointed in 1901 to inquire into the relations of Human and Animal Tuberculosis was issued as a Blue Book in January, and affords striking evidence of the valuable work that continues to be done by them. The report deals more particularly with that part of the inquiry relating to the question of cow's milk as a medium of tubercular infection, and establishes among other weighty facts that the milk of an infected cow, even though it come from an udder in all respects healthy, can nevertheless become laden with bacilli eliminated in large numbers along with the excreted products of the digestive and other tracts. The pollution of milk may appear to be a subject affecting public health, the dairy farmer and milk purveyor rather than the poultry keeper; yet in the rearing and fattening of poultry milk is largely used. If, therefore, as the researches of this commission seem to have proved, tuberculosis in man, cattle, and swine so often follows the ingestion of germ-tainted milk, it would certainly not be unreasonable to admit that the well-known prevalence of the disease in poultry might be traced to the same agency. The commission have not yet completed their investigations into the special characters of the bacilli which cause tuberculosis in animals other than the cow, and they have postponed the publication of those results for the present. We hope that when they come to hand it will be found that the phase of the malady, as it occurs in poultry, will not have been overlooked On sanitary and industrial grounds alike it is entitled to attention, and such an opportunity may never recur.

A Slump in Foreign Eggs.

Our marketing section records one of the most remarkable variations in foreign egg supplies during the month of January that has been known for many years. The figures, with those corresponding for the same period of 1908, will suggest an explanation of the phenomenally high prices which prevailed in January, the highest since 1871 :

	No. of Eggs Imported.	Values.
January, 1908...	1,595,915 gt. hds.	... £680,491
January, 1909...	933,391 ,,	... 447,377
Decre ...	662,524 ,,	£233,114

This represents a reduction in supplies of no less than 112,006,920 eggs, or of 41·51 per cent., and in values of 34·25 per cent. As a result, the declared values of foreign eggs in January, 1909, were 1s. 0½d. per gt. hd. more than in the same month last year. What the explanation is of this remarkable falling off remains to be seen, and may be revealed when the February returns are published. If supplies could not be forwarded owing to severe weather, then there will probably be a large February increase to record, though, as a rule, existing stocks are not held over at this season owing to falling markets. But from information received we are inclined to the opinion that, owing to the high prices obtained during the autumn, shipments were forwarded earlier than usual —hence the shortage in January. We are glad to note in the "Trade and Navigation Returns" that for the first time the eggs hitherto credited to Belgium— which is only the final country through which these pass before reaching Britain — are now recorded as from Italy and Austria-Hungary, and we hope that those coming to us from Germany, France, and other countries will be dealt with in like manner.

The Theale Leghorn Experiment.

The report given on another page of an experiment conducted during last year on the College Poultry Farm, Theale, to test the laying qualities of Danish, American, and English (exhibition) Leghorns, will probably let loose once more the flood of controversy, but that does not concern us now. It would be a pity if in the clash of contending hosts the prime fact to be determined should be lost sight of, namely, the influence upon economic qualities of breeding for exhibition upon lines which differ from those adopted formerly. Whether alien blood has been introduced into the last-named or not is immaterial in view of the fact that its advocates frankly admit that in respect of size of body, shape and general type, the modern is totally changed from the older form. Therefore the question is—How far may that be carried until it becomes a new breed? So far as the Theale results are concerned, it may be pointed out that Danish Leghorns are bred first and foremost as layers, that the Americans are the same but with rather more attention to show characters, but that with birds of the English (exhibition) type success in the show pen is the object, primarily and all the time, with laying as a minor consideration. It is, however, greatly to be regretted that a pen of English Utility Leghorns was not included in this test, as it may be thought that the bulk of our birds are of the exhibition type, which is not the case, as they represent but a small moiety.

Goose-Breeding in Germany.

The Board of Agriculture have received, through the Foreign Office, a despatch from H.M. Consul-General at Hamburg (Sir Wm. Ward, C.V.O.), in which it is stated that the recent formation of an association amongst the leading goose-breeders in Germany for the purpose of developing and improving the breeding of geese has directed public attention to the fact that upon the whole the production and quality of German geese has of late years largely declined. Figures are available, showing that the number of geese in Prussia, Wurtemburg, and Baden fell between 1892 and 1900, and there is reason to believe that a decrease has likewise taken place in nearly all other parts of Germany. According to the 1900 census, the total number in the Empire was 6,239,126. On the other hand, a considerable increase has taken place in the importation of geese into Germany, the total number having risen fairly steadily from 6,220,000 in 1900, to 8,984,000 in 1906, and the annual value from £872,350 to £1,485,000. The diminution in the home stock is, therefore, not due to a lack of demand, but is considered to be attributable to a neglect of careful breeding, with the result that the birds have deteriorated in quality and have become unprofitable.

Cult of the Dorking.

Everyone speaks well of the Dorking fowl, which is fully dealt with by various writers in the present issue, but comparatively few keep the breed. It is so far recognised that to say a single word in dispraise would be rank heresy, if not actual treason. But there the matter ends with the great majority of poultry breeders of all grades. A few here and there retain their affection for and interest in this fowl, and it is to them that we owe its maintenance. Not a few are found among the wealthy, to whom profit is not of supreme moment, so long as they can have upon their tables fine poultry and a fair supply of eggs. We would there were many more such poultry breeders than is the case at present. Perhaps the articles given in THE ILLUSTRATED POULTRY RECORD this month may do something to add to the list of Dorking supporters, not only among exhibitors, though they would be welcome, but also practical poultry keepers, whether for home consumption or for sale. It would be well worth the effort to attempt its reintroduction in its native county, Surrey, and we commend this suggestion to the many interested in poultry in that section of the country. What was written by the Rev. E. S. Dixon, M.A., more than sixty years ago, stands equally true to-day: "The breeder and the farmer's wife behold with delight their short legs, their broad breast, the small proportion of fat, and the large quantity of good profitable flesh. When fatted and served at table the master and mistress of the feast are satisfied."

Indian Method of Fattening.

The above reference to the Rev. E. S. Dixon calls to mind a quotation given in his "Ornamental and Domestic Poultry," written by a correspondent who had lived many years in India: "The fowl-house, or rather feeding house, for only fattening fowls were permitted to be in it, was kept as cool as possible, and almost dark. Each fowl had a separate pen; they were fed once, and only once, a day, with rice, boiled as right ought to be for Christians; not to a mash, but so that grain from grain should separate. The quantity to each fowl was about two ounces (before boiling). For the first three days to each was given about a teaspoonful of 'ghoor,' a coarse sugar —about half as much again of treacle would be an equivalent. This commencing with sugar was held to be very important; it cleansed the birds and disposed them to fatten; no water was given; neither was any chalk or gravel, both being unknown in the country. In about three weeks the fowls were generally fat. . . . If they did not fatten in three weeks we supposed they did not mean to fatten; but this was of rare occurrence, and proceeded, no doubt, from some ailment beyond my power of discovering; but, fat or otherwise, they were never tough. To boil the rice in buttermilk is by far preferable to boiling it in water; let the fowls be as young as you can, if of full growth. Many people run away with the impression that fowls fed on rice will go blind; it is dirt and sourness that cause it." Some of our fatteners might try rice, which is known for its virtues in putting flesh on to ducks.

The Four Months' Laying Competition.

The second winter laying competition at Bagshot, which commenced on October 21 last, finished on February 9—a period of exactly sixteen weeks. Each pen consisted of four pullets, all of which were in their new quarters six weeks before the commencement of the competition. Mrs. R. Dixon, Tardebigge, Bromsgrove, secured premier honours, while Mr. R. Dixon was awarded second, and Mr. T. Sutton, Aintree, Liverpool, third place. In each case the strain was the competitors' own. Miss Galbraith, at whose place the competition was held, and who very ably managed the birds, has issued an interesting report, giving definite particulars regarding the housing, feeding, and health of the birds, together with the number and weight of eggs produced. We are glad to note that size as well as number of eggs is taken into consideration in making the awards. Six points are given for eggs weighing 2 oz. or over, 5 points for those weighing $1\frac{3}{4}$ oz., and 4 points for those weighing $1\frac{1}{2}$ oz.

THE DORKING.

THE SILVER-GREY DORKING.

By ARTHUR C. MAJOR.
President of the Dorking Club.

I HAVE been asked to write a few lines on the Silver-grey Dorking, the only breed of fowl I consider worth keeping, for farm use, as an all-round fowl. It first won my affections in 1877, and I have kept them ever since (thirty-two years) and have done my best year by year to make them what they are to-day, the ideal farmer's fowl, and a thing of beauty in the show pen. The Silver-grey is the most beautiful variety of the Dorkings; in addition to this, its flesh is the most delicate, the skin being very thin and transparent and beautifully white. To show what an excellent table fowl it is, I exhibited a pair of pullets picked up from their run, without any fattening, at the Dairy Show, and was awarded a Silver Cup, beating all pure breeds and crosses.

Years ago the lightest coloured Dorking hens were crossed with the Duckwing Game to get the soft grey colour which is so much admired in the Silver-grey Dorking. This was the cause of so many Silver-grey Dorking hens twenty-five years ago having dark feet and being red on the wing; but at the present time these faults are seldom found in good up-to-date strains. There is not the least doubt that this popular variety has come very much to the front, and there is now a greater demand for them than for the Darks. Years ago a Silver-grey stood no chance in the show pen when shown against a Dark in the same class on account of size, but now many Silvers are equal, if not larger. A club was formed in 1888 to provide separate classes for them, of which I was elected president, and I am proud to say I still hold the same position. In 1891 a handsome challenge cup was subscribed for to the value of thirty guineas, to be awarded to the best Silver-grey Dorking every year, to be won three times in succession. I have had the honour of winning it four times, viz., in 1901, 1902, 1907, and 1908. Twenty years ago it was not uncommon to see prizes awarded to cocks of a straw colour, on account of their size, but thanks to the firm stand for the pure Silver insisted on by the Silver-grey Dorking Club these are seldom now seen, and, if shown, are passed unnoticed. It is a remarkable thing, but quite true, that no amount of sun will alter the silvery colour of a Silver-grey cock if he is of the right strain, and I have been fortunate enough to have had this strain from the first, having obtained them from the late O. E. Cresswell, a true fancier, for whom I had a very great regard. The Silver-grey Dorking is one of England's oldest breeds of fowl, and it has stood the test against all others, and breeders of them are amongst our oldest fanciers. But during the last quarter of a century they have made rapid strides. We no longer see the creamy coloured cocks with striped hackles, and hens red in wings with dark feet, in the show pen. All these defects have been overcome, and the Silver-grey Dorking of to-day is the most handsome and useful of any breed of fowl. Size plays an important part, without coarseness. Quality is essential to the Dorking.

The following are the chief characteristics of the Silver Dorking: Cocks—The head is carried erect, comb, lobes and wattles red, and medium in size, fine in texture, the former well cut, wedge-shape spikes, neck well arched with an abundant flow of white silvery hackles, free from striping, although a little greyish striping at the base is permissible. The breast is full, solid black, free from splashes, as also the thighs; the tail is also jet black with glossy green coverings, and sickles free from any white whatever, all of which should be full and flowing. Back is broad and long, with a nice flow of silvery white saddle hackles, free from a yellow tinge or striping. The legs and feet, which are of much importance, are of a waxy white, hard as flint, free from redness down sides, toes five in number, the fifth well cut apart, running up the leg, with white toe nails. The hens should have a well serrated leaf comb, medium in size, and hackles silvery white, with a narrow black stripe in centre of feather. Body and wings silver-grey finely pencilled with a darker grey, free from rustiness in colour on wing butts. The breast well extended, the colour varying from robin red to salmon colour, shading off to an ashy grey near thighs. In all, a typical Dorking should be a long, low, blocky bird, standing wide with a full front, of cart-horse build, with good hard feet.

It is a common fallacy to think Dorkings will not do on heavy soil; they must have gravel, we are told by some writers. Have any of these authorities ever bred a Dorking? You cannot make a Dorking grow large on poor soil; one may as well try to breed, "Shire" horses in the Shetland Isles. The best are bred on the good loams of Bucks, Sussex, Yorks, Lincs, and Scotland. Then we are told they are not hardy. Ask Mr. Annand, of Keith, N.B., who lives in the coldest part of Scotland. This year I have had my chicks running in the open, with 27 deg. of frost, and never lost one; is not this a proof to the contrary? It is quite time this false impression was exposed. Then as to their laying qualities, on a grass run they are hard to beat, and rarely want to sit till the middle of the summer. Mr. Cathcart, of Fife, tells me they

lay as well as any breed he has. They are easily prepared for show, only requiring their face, wattles, legs and feet and cocks' hackles to be washed.

In conclusion, I hope every one will give the Silver-grey Dorking a trial, and I feel sure they will not regret it.

THE WHITE DORKING.

By JOSEPH PETTIPHER.

SOME day, when the craze for new breeds has run its course, when poultry fanciers have tired of rushing after the latest novelty, and everyone has introduced his pet new variety or failed in the attempt, there will in all probability come a revival of interest in some of the good old breeds that were popular from twenty-five to fifty years ago; and they will be resuscitated, boomed, brought up to date, clubbed, and again enjoy a period of popularity. In fact, I am not sure there are not at the present time some signs of such a revivification, and the sooner it comes the better. For there are several of the old standards which, if they received half the care and attention which is bestowed on some of the modern introductions, would well repay the trouble, would ably hold their own both as utility and exhibition specimens, and would provide a much more interesting and remunerative hobby than the manufacture of some new mongrel destined probably to disappear as rapidly as it came. I have nothing to say against the many really useful modern breeds that have come to stay; they are the outcome of scientific breeding founded on the old English and Asiatic varieties, but the thing has been carried too far. Birds which only a couple or three years before were cross-breds have been puffed up as new varieties till people are beginning to sicken of it, and their few supporters have a struggle to keep them from total disappearance.

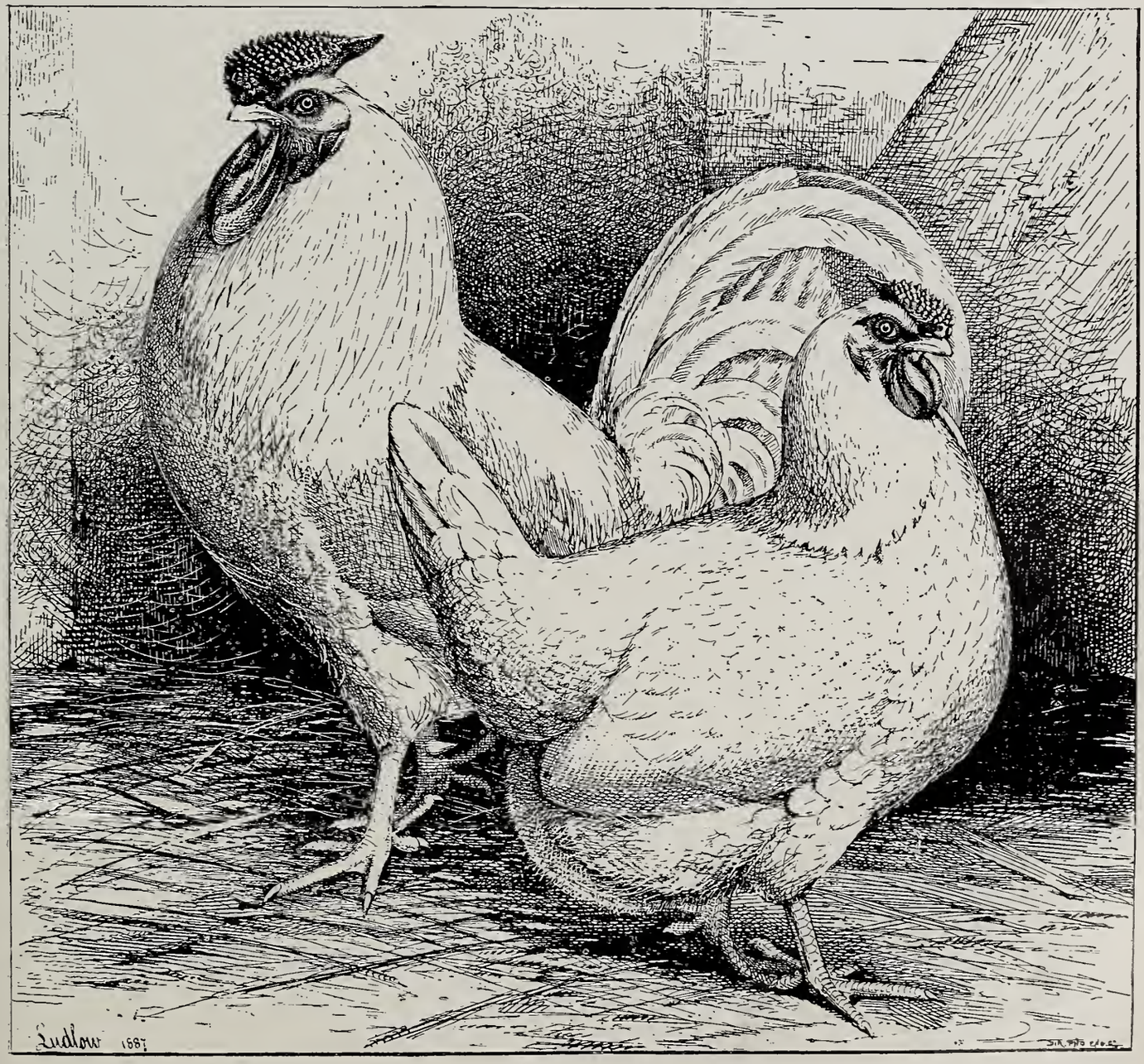
When this revival of old breeds takes place, the White Dorking will be one of the first on the list to receive attention. More modern introductions such as the White Orpington—which undoubtedly owes a considerable portion of its origin to the White Dorking—have done much to dispel the old erroneous notion about white birds being necessarily delicate, and the generally useful properties of a bird bred to the standard of the White Dorking will be bound to command attention. Meanwhile this grand old breed has practically disappeared from the zone of exhibition poultry and, though it is still bred by a few people in different parts of the country, I am afraid it has, generally speaking, much deteriorated—especially in size—owing to a great extent to the difficulty of obtaining reliable new blood. There are, however, still to be found a few good strains, some of them in the hands of breeders like Mr. E. E. Elliot, who have stuck to the breed for a lifetime; and there should be no greater difficulty now in lifting the White Dorking to a prominent position in the poultry world than there was in the year 1884, when a few breeders met together at the Palace and formed one of the then few existing specialist clubs—the White Dorking Club—of which I had the honour of being appointed honorary secretary, and which soon transformed the then occasional class for cock and hen, or cock *or* hen, into an extended classification for separate sexes, ages, and selling classes. After that the White Dorking had a run of several years' popularity. Challenge cups were much in evidence and good prizes offered. Wherever classes were given there was a large entry, and good specimens realised high prices. Subsequently there came a slump in this as in other breeds, and in common with many others I gave up breeding them, chiefly because it was disheartening to have to kill all the best selections of a season's breeding owing to lack of any demand for them. A little effort on the part of a few breeders, *plus* a revival of the old club or the establishment of a new one, and the White Dorking would, I believe, boom again. Could not some of the old hands be induced to take the initiative? Turning up the first club list—published in 1884—I find that with the exception of the late Mr. O. E. Cresswell, who stuck to them to the end, all the executive are still alive, viz., Messrs. Darby, Pilgrim, Rev. R. S. S. Woodgate, and myself. And the lists of members of the following three or four years contain many names of those who are still with us and might join in the revival of this good old breed. I believe their efforts would be rapidly followed by those of others who would soon realise that a good White Dorking was one of the finest combinations of beauty and utility in the poultry world. Moreover, there are already again some signs of a demand for good birds of this variety abroad. Only last summer I was asked by a South African breeder if I could procure him a pen of birds of this breed. I did so, and have since not only had the pleasure of hearing that they gave entire satisfaction, but also that a number of chickens had been hatched from them, and that the owner hoped to spread the breed in his district.

I believe it was in 1878 that I had my first pen of White Dorkings, and with over twenty years' experience with them I can safely say they are a hardy variety. They are not suited to too close confinement, but I have seen them thrive well at liberty in the most bleak and exposed situations 700 to 800 ft. above sea level. I have had a pullet laying at four and a quarter months, and subsequently I won the cup at the Palace with her; and I always found them excellent layers, whilst as foragers I never saw their equals.

THE RED DORKING.

By THE VISCOUNTESS MALDEN.

IN the present day, when a new variety of fowls is invented every month or so, it is refreshing to turn to a breed which owes nothing to so-called "manufacturers" or "improvers." As is well known, the Romans are supposed to have introduced the Dorking, among other benefits, to Britain, and the Roman writer Columella, in describing the fowl most prized by his countrymen, draws an apt portrait of the bird we now call the Red Dorking. The Romans undoubtedly understood the science of living well, and we can hardly suppose that a fowl would have been singled out for notice, and minutely described, unless it had really been something very superior indeed. We find their taste vindicated even in this present age, since everyone who tastes a pure-bred Red Dorking is bound to confess that it is certainly one of the finest, if not the finest of, table fowls in existence. In 1850, when the Cochin "mania" was sweeping over England and the craze for size was beginning, the Red Dorking almost alone of all the then native races of poultry maintained its original purity. This seems extraordinary and can only be explained by supposing that some genuine



[*Published in 1887 by the White Dorking Club.*

"STANDARD" WHITE DORKINGS.

lovers of the breed had the wisdom to preserve it unspoiled, and kept it so, from generation to generation, in exactly the same way as our forefathers cherished their Game fowls.

The Red Dorking, apart from its utility, is a very handsome fowl. The cock is a black-breasted red; he should have a bright glossy red neck and saddle hackle, a black breast, a flowing black tail with a brilliant green sheen, while his back and wing bows should be a dark red. His comb should be of fine texture, not too large and well set on his head. In addition, a good cock should have a deep and full breast, a thick, heavy body of true Dorking type, and short white legs with five toes on each foot. The colour of the hen should be reddish brown, the redder the better, the feathers being more or less tipped or spangled with black, and they should also have a bright yellow or orange-coloured shaft or "mid-rib." She should have a bright golden neck hackle heavily striped with black, with primaries and tail feathers generally black or very dark brown. Like the cock, she should have a small fine comb (only in her case it falls over, or folds), and short white legs and five toes. The eye in both sexes should be bright red. A curious characteristic of the Red Dorking hen, and one which seems to point to a close alliance with the Game fowl, is that she is frequently spurred.

The good qualities of the Red Dorking are many It is a splendid table fowl—in fact, for sheer quality of flesh it has no superior; and the hens are good layers and excellent sitters and mothers. The eggs generally prove very fertile; the chicks are hardy and easy to rear, and they are ready for the table at an age when the larger and slower maturing breeds are mere frameworks. Indeed, both chickens and adults are hardy, and they seem able to thrive on almost any soil. They are excellent foragers and the hens lay well all the w.nter, often, it seems, in defiance of the weather. True, they lay white-shelled eggs, and, alas! nowadays most people (myself among them) prefer brown ones, and this, I expect, is one reason for their present unpopularity.

The only difficulty, and it is a great one, in breeding Red Dorkings is to get really fresh blood. As the old breeders die out there seems none to replace them; people appear to have forgotten (if they ever knew) what a really good table fowl ought to be, or perhaps they lack that keen appreciation of the "really good" which was so prominent a characteristic in our ancient conquerers.

Anyone knowing the breed well could not imagine a very heavy Red Dorking—that is to say, if judged by the same standard as the Darks and Silver-greys. It is a very lively, active fowl; a great activity does not as a rule go with great bulk, at least such has been my experience. Among my own stock I have cockerels at $8\frac{1}{2}$ months weighing 5 lb., pullets of the same age weighing 6 lb., while a full-grown cock will weigh 7 to 8 lb. and a hen from 6 to 7 lb. Much increase on these weights I have not found an improvement. From time to time I have bred larger birds, but have invariably found them less active, and the hens have not been such good layers as their smaller sisters.

The pure-bred Red Dorking is a tight feathered fowl, almost as much so as the old Fighting Game. There is a good demand for cockerels, because when they are mated to almost any stock their progeny show a great improvement for table use, and if people have once used a Red Dorking cockerel it is very seldom indeed that they care to try any other. The variety is essentially not an exhibition one. It shows badly—looks miserable in its pen; besides, it appears a mere pigmy when compared with its gigantic "cousins." No; it is a farmer's fowl only. With a free run it will require little hand feeding and will range far and wide, seeking its own living. If left to itself, it will roost in the open almost all the year round.

THE DARK DORKING.

By Geo. H. Proctor, J.P.

DARK Dorkings are, without doubt, both as exhibition and table birds, amongst our handsomest and best varieties of poultry. What is finer than a flock of Dark Dorkings, long in body and low on leg, the cock with a well-set-on comb, fine flowing tail, black breast, full hackle, and pure white feet? And the hen, although more subdued in colour, with her fine falling comb and short legs, is a fit mate for her more taking partner. Dark Dorkings I consider quite as hardy as most of our varieties. At the same time high ground, with sandy or gravelly soil, is most suitable for them, and with full liberty they seldom look sick or sorry, and as for foraging for themselves, they are second to none. Although it is essential to shade them for exhibition, they do not bear confinement well and are not the variety for backyard fanciers.

As for the colour of the cock, I must admit I do not like him too dark. He should have a well-striped hackle, black breast and tail, without any brassy feathers on his wings. At the same time I would not discard an otherwise good bird for a little ticking of white on his breast and fluff; a bird of the light shade generally has the whitest feet, and, no doubt, too, dark-coloured cocks are answerable for sooty feet to a great extent. I prefer the hen dark and rich on back, the rib of the feather showing up white, with a

striped hackle, and mixed with rich brown on breast. Some of the best-shaped hens of the present day show a little grey mossing on back and wings, and in these you will generally find the whitest feet.

It has been generally understood that the South of England was mostly the home of the Dorkings, but of later years many of our largest and best have been bred in the North. The former notion may be accounted for by the South-Country birds maturing more quickly; but it is a fact that the Northern-bred birds usually come out well at the Palace and Birmingham shows.

THE DORKING AS A UTILITY FOWL.

By EDWARD BROWN, F.L.S.

OFTEN has the question been suggested as to why it is that the Dorking has, in spite of being an exhibition fowl for many years, maintained so completely its value for practical purposes? In fact, why have there not taken place the same changes which have marked the course of other breeds? The answer is threefold. First, that the standards adopted are in conformity with and not antagonistic to its economic qualities, and that the breeders as a rule have not been ultra-fanciers; second, that colour has never been and is not an important point, and that such colour as is found is natural, not artificial; and, third, that as the Dorking does not thrive in confinement or on cold soils, the multitude of smaller poultry keepers, from whose numbers the ranks of exhibitors are largely recruited, do not find it suitable for their conditions, and hence it has not attained popularity in that direction, being *par excellence* a fowl for farmers and for country residents. That such may continue to be the case is the hope of all who are interested in this ancient and noble race.

Before dealing with the breed and its varieties in detail, it may be well to quote the opinions of those who knew it long ago, yet within modern times. I am tempted to go into its history, to trace its descent from the time of the Roman Empire, near two thousand years ago, to show its distribution over parts of Western Europe, notably France and Britain, but must forbear.

Bonnington Moubray, whose "Practical Treatise" was first published in 1815, states:

> The Dorking Fowl, so called from a town in Surry, where probably the variety was first bred, and where, and in its vicinity, they are to be found in great plenty and perfection, is, in the third degree, the largest of our fowls, well-shaped, having a long capacious body and short legs, and is a plentiful layer. The genuine colour intire white; chief distinctive mark, five claws upon each foot. The white is probably not so pure as that of certain of the dunghill fowls, nor is the colour of the flesh that inclining to a yellow or ivory shade.

Many of the earlier writers, dealing with the so-called dunghill or common fowl, evidently refer chiefly to the Dorking, but their descriptions are not very clear. Mr. G. Ferguson, secretary to the London Poultry Improvement Association, whose work "Rare and Prize Poultry" was published in 1854, says:

> From 1683 to the present time we have ample proofs that the principal fowls of this description have been bred at Dorking or its environs, and that they have for a considerable period, and still do, retain the credit of supplying the market with the finest specimens, both for appearance and for the table.

The late Mr. John Baily, in his little work on "The Dorking Fowl," published in the 'fifties, states that:

> The hens are good sitters and good mothers; there is a natural tendency in the breed to fatten, so that young are made to attain to eight or nine pounds weight, and at table they surpass all others in symmetry of shape, and whiteness and delicacy of flesh.

Other quotations could be given, but these will suffice for our present purpose.

The great value of the Dorking is as a producer of meat, which is not only abundant but delicate and fine in flavour and beautifully white, with a fine clear skin. The hens are fair layers of large, white-shelled eggs, and are early layers; but in respect to number of eggs they cannot compete with many other breeds. That fecundity can be developed has been proved, but to do so would be at the expense of the flesh properties, and therefore is to be deprecated. Anything, whether egg production, colouration of plumage, or secondary characters, detracting from the main consideration, would be harmful. Hence type is all-important. In *The Poultry Chronicle* of October 18, 1854, is a short article by the late Mr. John Baily, which contains the best description of the shape I have seen. He says:

> In shape the body, divested of head, tail and legs, should give a square. The heads should be fine and intelligent, the face plump and round, the legs short, the tail ample and carried cheerfully. Neck short, and increasing in bulk till it is lost in the breast; it is not placed on the shoulders as in some breeds, but it loses itself in the body, helping to form the prominent and full breast for which these fowls are famous.

To that may be added the need for lightness of bone, without which much of the value of the breed would be lost. For so large a body a substantial bone is needed, but not relatively, and fine bone ought to be ever kept in view by the breeder, otherwise growth will be much slower and flesh harder.

At one period the number of varieties was much greater than is the case to-day. For our purpose we

may rule out the Whites, which are excellent for ornamental purposes and also have useful qualities, but do not compare favourably with the others, and the Cuckoos, which are almost extinct. We are thus left with the Darks, the Silver Greys, and the Reds. Descriptions of these are given by other writers, and I am concerned alone with their value for practical poultry-breeding.

Size of body is important in a table breed, and the Dark or Coloured Dorking has, in this country, obtained a somewhat larger measure of popularity than the other two varieties on that account, though I am inclined to the opinion that owing to a cross which took place fifty years ago, made by the late Mr. John Douglas, the Darks have proved the hardiest of all, which would account for their being kept to a greater extent. With that cross came a thickening of bone which does not appear to have been bred out, even if any serious attempt has been made in that direction. Such must be at the expense of flesh, and although the Darks are usually heavier than the Silver Greys, they do not carry any more meat, and I do not regard them as so fine and delicate in skin. It would be advantageous if breeders gave special attention to fineness of bone and delicacy of skin.

The Silver Greys would appear to be more widely distributed than the Darks; as evidenced by the fact that in France and other European countries, where five-toed common fowls are met with, they most nearly resemble this variety. That is due to the fine quality of flesh and of skin, and to lightness of bone. There is an opinion that the Greys are less vigorous than the Darks, which appears to be justified, and to explain preferences for the latter. How much is due to line breeding for exhibition I cannot say, but probably more than is thought to be the case. This variety fills out well in the skin, in which the Darks are somewhat lacking, and looks plumper.

As to the Reds I cannot say much, but that much is good. They are heavy weighted, short in the leg, and beautifully white in legs and flesh. My own observations are that they fatten well. But for some reason they do not become popular; in fact, it may be frankly stated that they are a failure as exhibition stock, at which we need not shed any tears. I hope they may be taken up by practical breeders. Were it not that at Theale our land is unfavourable for Dorkings, I should like to see what can be made of them.

I have not left any space to deal with the value of the Dorking for crossing to produce table chickens, in which respect it stands supreme. Several pure breeds owe much to Dorking blood, but when the object in view is market chickens of a high class, then the Dorking should enter very largely into the work. But that can only be on dry, kindly soils. The chief points which breeders should aim for are lightness of bone, whiteness of legs and skin, fineness of texture in comb and wattles, vigour of constitution, early laying, rapidity of growth, and fuller flesh on the breast. These secured, colouration of plumage is a minor matter. The big, coarse-combed Dorking is objectionable in the extreme, and usually associated with coarse flesh.

THE HIGGLER'S TYPE.

By J. W. HURST.

THE chicken higgler does not know very much about breeds as such, and cares less. He values feathers chiefly in their dead bulk, at an approximation to £24 per ton; whilst the colour of the plumage upon the living bird impresses him variously. Broadly speaking, he is favourably disposed towards red and somewhat prejudiced against buff, with individual preferences regarding any other shade or colour. All such subtle considerations are somewhere in the back of his mind, the forefront of which is entirely occupied with *type*. In this particular he knows just what he wants without any shadow of doubt or important deviation, and individually or collectively he wants one type. That he does not always get what he wants is not entirely his fault, and that he sometimes grudgingly accepts less than the standard built up in his mind by experience is due rather to the exigencies of supply and demand at the moment than to any relaxation of the measure of his fixed requirement.

He has frequently been told that what he really does want is something quite different, and times without number altruistic writers have drawn up and offered counsels of perfection for his guidance,

more than hinting that his mental attitude is far too gross; but all such supererogatory advice has been as the resilient water upon the proverbial duck's back. After all, the higgler may be presumed to know his own business, a presumption that receives some confirmation from the fact that he generally does pretty well at it; so we may suppose that, as the result of long higgling, he has found out in which direction the greatest profit lies—which is the general aim of all commercial production. It must always be remembered that the higgler is the rearer's capitalist, paying desirable ready money at every transaction; and the length of his purse is never too short for the rearer's legitimate demands upon it. It is therefore fairly obvious that the rearer is in no position to teach, his clearly defined policy being to earn the money the higgler offers by producing what the higgler desires.



[*By the courtesy of the Sussex Poultry Club.*
Red Sussex.

Type is that which combines best the characteristics of a group, and the higgler regards table fowls as a group irrespective of breed. In his type are combined the characteristics that offer the least resistance to the finishing process of fattening, and give the best ultimate results. In so far, however, as such desirable qualities are found in any combination in any one breed, they are generally recognised as existing in the Sussex, which was the higgler's bird long before it was officially a breed, or its present fanciers were born. It may without any exaggeration be described as the nearest embodiment of the higgler's type, its excellences in this respect owing much to their long development for the sole purpose of meeting the higgler's requirements.

It has become the habit of some to speak of the "old Sussex," presumably in contradistinction to some modern exhibitional specimens; an attitude that is understandable and, to an extent, inevitable when a breed becomes a "strong fancy"—and there is every indication that the tendency of the standardised Sussex fowl is in this latter direction, In order, as far as may be, to guard against this dissociation of ideas and ideals, the authorities responsible for the modern exhibitional career of what was originally a higgler's bird have taken the very sensible course of amending their standard by emphasising "flatness of back" as a distinctive characteristic. I speak of the "modern exhibitional career" advisedly, in view of the fact that when the first poultry show was held in the Zoological Society's gardens in 1845 the prize list (signed by John Baily, amongothers) enumerated under the heading of Domestic fowls—"Surrey" and "Kent," in addition to "Dorking" and others. This connection with the Sussex is not far to seek. Relative to this point, the late Mr. Harrison Weir, writing to me in 1904, stated that these fowls "were found throughout Kent,



[*By the courtesy of the Sussex Poultry Club.*
Speckled Sussex.

Sussex, and Surrey . . . the southern Old English fowls . . . the very best table fowls in the world."

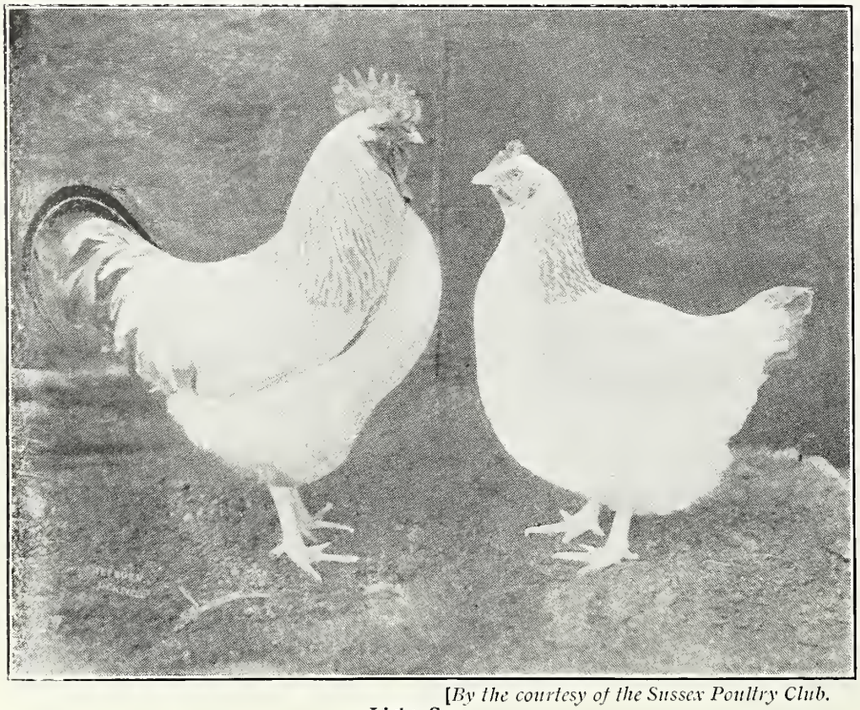
Mr. Weir was writing of his recollections of "over *seventy* years ago," from the date of his letter, and he mentioned Sussex breeders of that period. This is, however, by the way.

To return to our subject—the characteristic flatness of back, which is so distinctive of the higgler's type—it is especially noteworthy that this was the one mark of the Sussex fowl that particularly impressed such a well-known authority as the late Mr. Lewis Wright. I am in possession of a letter received from Mr. Wright, in which he informed me that "the really most distinctive point about the old breed as I knew it, and can remember, was its width of *flat* back. [The italics are his.] It was wider and flatter than any other, according to my impression; the Dorking back at present is quite different, sloping away from the centre. The birds I supposed were Sussex (or Surrey) in the days forty years ago (about 1865) would have touched a rule laid across, being four to five inches. These are my own impressions and recollections."

Length is of considerable importance in relation to the breadth and flatness of the back and the width of the shoulders; such characteristics being commonly indicative of a desirable muscular development, just as the breadth, contour, and prominence of the breast are largely dependent upon the length and depth of the breast bone. The typical body should be set upon characteristically short and stout legs, with well-defined thighs, set well apart. Such in a few words are the essentials of the Sussex standard as regards type (colour of shanks and texture of skin being understood), and it may be taken that birds bred to that standard should approximate to the general requirements of the higgler; the pursuit of the more elusive and superficial exhibitional characteristics being subservient to the higgler's type, which must remain paramount in a breed with such a record as the Sussex. I have referred thus particularly to the case of the Sussex fowl because its history and very existence have been so closely identified with the chicken higgler that it has become more generally typical of his requirements than any other.



A Sussex Higgler. [*Copyright.*



[*By the courtesy of the Sussex Poultry Club.*
Light Sussex.

It must be readily admitted that those who breed for the higgler have, in some cases, produced the requisite type by methods of cross-breeding and the use of nondescripts—it is a matter of selection—but the Sussex is the only breed that can be pointed to as fulfilling the requirements in itself, and reproducing the distinctive characteristics in the ordinary course of breeding. As far as a breed may be, it is the materialisation of the higgler's type; and it is this fact that constitutes its chief distinction, and forms the basis of its claim to extended recognition.

FOX-HUNTING AND POULTRY-KEEPING.

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—The admirable series of articles by "Home Counties" on this difficult subject must, I think, contribute very largely to a proper understanding of the points at issue between fox hunters and poultry keepers. Your contributor has dealt with the questions that have arisen impartially and without favour to either side, and his articles stand out prominently from the mass of correspondence in the Press written, in most cases, by the rabid partisan.

I think it must be obvious to most people that fox-hunting is of great benefit to the nation in various ways, but, for the purpose of this letter, I propose to eliminate any reference to this aspect of the case and to confine my remarks to the point of view of fox-hunting as it affects poultry keepers.

It seems to me that the question must be judged from the point of view of the community, and that if in a district there are a great number of poultry keepers the fox hunters must allow the industry to exist; and, on the other hand, in fox-hunting districts hunting should not be made impossible by reason of a few persons desiring to keep poultry. In fact, the minority ought to yield to the majority.

As to the benefit of fox-hunting to poultry keepers, I do not think that there can be any doubt of the great advantage of encouraging people to reside in the country during the winter months and keep up large establishments. One of the great drags on profitable agriculture is carriage, and anything that brings a market to the farmer's own door is to be encouraged. In egg and poultry raising this is particularly so, and it is a significant fact that, in spite of the increase in poultry-keeping, the markets are just as short of fresh eggs as ever they were, for the reason that the eggs are bought locally; and with the increase in winter egg production the country resident will be still more valuable. And the benefit of hunting must vary in accordance with the locality, for whereas in the country round London the absence of hunting would not materially affect the poultry keeper, in the Midlands it would mean disaster, and as an extreme case I can quote to my own knowledge a village in the centre of the Cottesmore country, which forty years ago had no gentry and now has five hunting-boxes, with an establishment sufficient to provide for the 60 or 70 hunters that are maintained there all the year round. The direct advantage to the farmer is not so great, as few hunting people care to pay for corn and fodder much over the market prices of the district, and the extra profit would not more than set off the damage done to his pastures by the hunting; but the indirect advantages are enormous, and in the particular instance given above I should say three-quarters of all money subscribed for church, school, and charitable purposes comes from the hunting boxes, and without hunting there would be few residents of means, for the country is not sufficiently attractive.

In such districts as these, therefore, poultry keepers who want to keep poultry out on farms or on the colony system are at a great disadvantage, as, although they obtain some compensation, it is not sufficient; they are therefore obliged to curtail their operations in this direction; but I think they recognise that they derive benefits in other ways and, of course, those poultry keepers who are in the villages, and particularly those who keep poultry in back yards or gardens and who rarely suffer loss, have a better market for their eggs and poultry at their own door. And it is the fox-hunting residents, too, who encourage improvement in poultry and eggs, for they are generally ready to pay a higher price for a better article.

A large proportion of the friction that has arisen has been caused by the unbusinesslike way in which the money has been administered, this resulting in the hunts being victimised and the poultry keeper being, in some cases, paid for something he has never lost, and in other cases not half what he has lost. No hunt, I think, could afford to pay the full value of the bird taken, as such a course would render poultry-keeping in fox-ridden districts a profitable business; but the compensation ought not to be much less, say about three-quarters of the value. As to where the line is to be drawn it is very difficult to say, and many cases must be dealt with on their merits.

To arrive at a satisfactory settlement of the trouble, as "Home Counties" says, those who hunt must use tact and be fair, and poultry keepers, on the other hand, must be reasonable in their demands. Many poultry keepers have suffered considerable losses for the sake of fox-hunting, and in any inquiry it is important that those who have suffered should give their evidence without running the risk of being dispossessed of their holdings by fox-hunting landlords. Not that the landlords are always to be blamed, for their attitude is often the result of popular opinion, and it may be that the tenant will find protection under Sec. 11 of the Agricultural Holdings Act, 1908, which provides that where the landlord of a holding, without good and sufficient cause and for reasons inconsistent with good estate management, terminates a tenancy by notice to quit or refuses to grant a renewal thereof,

the tenant shall be entitled to compensation for the loss or expense directly attributable to his quitting the holding. The Act may, perhaps, also facilitate a hunt getting rid of an unreasonable farmer, as the committee could agree with the landlord to take over his liability under the Act as a term of giving the tenant notice to quit.

And in the careful consideration of the question it is important to get rid of the idea that it is a case of a struggle between industry and recreation. If the only benefit from hunting were recreation there would be no valid grounds for checking the industry, but a recreation that entails a very large expenditure per annum must be put in the category of a national industry, and it is for both parties to see that neither of them inflicts unnecessary damage on the other.—

Yours, etc., B. W. HORNE
(Vice-President, Utility Poultry Club).

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—A brilliant modern writer once described fox-hunting as "the unspeakable after the uneatable." The "unspeakable," however, can behave like gentlemen and sportsmen when they choose, as the following incidents will show :

One winter's morning, two years ago, I noticed that my gallant little flock of Indian Runners ducks, instead of numbering five, numbered only two. I looked in the duck house, which was left open by night, for Indian Runners are inveterate foragers, often roaming far afield and not returning until nightfall, long after the fowls have been shut up ; but I found no evidence to guide me as to what had become of the missing three. Then I walked round the meadow and found the body of one duck lying on the grass, with a great piece bitten out of it ; and my neighbour found two more of my ducks in his fields across the stream which divided our land.

I immediately wrote to the Master of the Hounds, for I was now certain that a fox had taken up its quarters close to my little farm, and I sent in a claim for 10s. 6d. In a week's time I had a courteous letter from Mr. Colman, enclosing a cheque for 10s. 6d., and informing me that he had had a capital day's run over my way, which terminated in that fox having had his last taste of duck when he collared my Indian Runners.

In the following winter, in another field close to a shaw of oaks and hazel, I had a hen-house in which a number of White Wyandottes roosted nightly, and I prized these birds more highly than the ordinary hen which picks up a precarious living on farms. On going down to this field one morning to feed the fowls a curious sight met my eyes. Hardly a bird was to be seen walking about in its usual self-satisfied, sprightly manner; but here and there under the brambles and clumps of bushes I saw splashes of white. Walking up to these, I pulled out one terror-stricken fowl after another, each one having buried its head ostrich-like in a hole. Their tails were *non est*, and they bore a generally lamentable appearance of having done a heavy moult.

After much assiduous searching I found three dead fowls in the wood and several others very much mauled about, and white feathers were lying about in the wood as though a boys' paper-chase had passed through it. I had my doubts as to whether this was the work of a fox or a dog, for a fox does not generally make such a mess of the job as was evidenced by the litter of white feathers. However, a few days afterwards the hounds came tearing over my farm and made straight for the hen-house and then into the wood. This settled my doubts, and I thereupon sent in my claim to the "Surrey Union" for three White Wyandottes at 4s. each, omitting any charge for "maulage." My claim was immediately recognised and a cheque for 12s. forwarded to me. Nevertheless, I still have my doubts whether a white terrier which I saw slinking about afterwards did not put her teeth into those White Wyandottes !

I do not think that unjust claims are often sent in, although a man unblushingly told me this story the other day. One night quite recently, when the snow was on the ground, a fox got hold of one of his stock ducks. When he came down in the morning the duck was still alive, but dying. He could only see by the marks round the neck that a fox had put its teeth into it, and immediately killed it. He claimed for the duck, got the money, and *ate the duck !*

Recently I came across a man whose grievance was a curious one. He had written complaining that the hounds, in running across his meadow, had so agitated his cow that it had run into a quick-hedge, had scratched its nose, and came in to be milked with a distended udder ! I passed the remark that I wished my cows would come in to be milked with large udders whenever the hounds were round my place ! I was on the look-out for a cheap method of forcing the yield of milk.

Whilst I unhesitatingly present the "Surrey Union" with this testimonial for courtesy and prompt payment, I must state that I have no sympathy with either the object or the manners of those who follow the staghounds ; and it is really against the stag-hounds that the cry of the small holders is raised.

I will give but one instance of the thoughtless behaviour of these gentlemen who hunt the deer. Towards the end of last season I saw a stag standing erect in one of my meadows. It was quite close to me and stood by a hedge. The moment that it caught sight of me it flew like the wind across the meadow, leaping with ease the field gate. Then a vision of scarlet coats amid the trees on the upland flashed

across me and the thunder of horses' hoofs struck my ears. I saw the leading whip and two men making for a fixed eve-gate dividing two of my meadows. Now these meadows had just been rolled and harrowed, and I pictured to myself what condition they would be in after forty or fifty horses had ploughed up the turf, for it was a wet and muggy day and the ground was as soft as it could possibly be after much rain. I rushed down to the fixed eve-gate, which not a single rider attempted to jump, and caught two men in the act of breaking it down as the foremost riders appeared. I forbade anyone to enter my fields, and after the passage of some appropriately purple language on both sides they had to beat a retreat and follow the hounds along a circuitous route. I rejoiced over giving the deer a fresh start. Although the gate was broken to bits, no one has ever had the courtesy to ask if any damage had been done.

It is this kind of thing, added to the very tangible but unregarded damage done to a freshly harrowed and rolled meadow on a wet day, which makes the Hunt unpopular amongst those who have to wrest a living from the soil.—Yours, &c.,

F. E. GREEN.

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—Your correspondent "Home Counties" has stated the facts very fairly for each side, and no one can deny that a public inquiry into this vexed question is rendered imperative by the mere fact that there is something to be said for both parties. For some years I have been endeavouring, with more or less success, to awaken public opinion to the necessity of such an inquiry, realising that a compromise would be the very best solution yet convinced that only by adopting desperate measures can we convince the fox-hunting party that we mean business. I am hopeful yet that very soon our opponents will realise that hunting must be paid for, just the same as other sports, and that it is intolerable in a civilised country, where we are not yet hopelessly given over to Socialism, that an industry in which many people are trying to earn a living should be sacrificed in order that an amusement of the people (or one section of the people) should not be interfered with. Such hopes, however, are occasionally rudely shattered when we are told by responsible representatives of the hunts, as I and others have been told, that—

(A) We have no right to keep poultry in a hunting country.

(B) If we do, we should take care of them by fencing them in.

(C) If we keep such things (poultry), and recognise the risk of loss, we must not ask others (the hunts) to share the risk.

(D) There is plenty of waste land in non-hunting countries where poultry could be kept.

I need hardly add that to suggest such a thing as a compromise to these people would be to waste breath. They lack the faculty to see the other man's point of view, and so the only thing one can do is to shoot their foxes, wire their country, and make oneself as disagreeable as one can. If only the reasonable men among the hunting fraternity would take the matter into their hands, tell the others what asses they are making of themselves and how they are debasing the sport, realise that hunting has got to cost more, like everything else in these glorious days of free trade, take the farmers and poultry-keepers into their confidence and undertake to compensate for every halfpennyworth of damage that could be proved, then we might write "finis" to the eternal fox question.

In a compromise there must be a partial surrender on either side, and whilst undertaking to compensate for damage, the fox party would be entitled to require that all birds should be shut up at night. Moreover, I think we poultry-keepers would gladly co-operate in any reasonable scheme to prevent the hunt being asked to pay the price of pullets for four-year-old hens. Compromise is the best remedy if the hunting people can be made to realise the facts. It will mean a huge addition to their already heavy expenses, for the splitting up of the large farms into smaller holdings is not only gradually extinguishing the sporting yeomen upon whom the hunts have so largely depended, but it is bringing in their place a practical, business-like class of people who will not tolerate hunting at all unless they are paid for putting up with it.

A public inquiry is vitally necessary from every point of view, and I should like to see every poultry club and association using its influence to bring about such an inquiry. After the admission in its "Year Book for 1909," we might excuse the Utility Poultry Club from taking part in such a movement. I refer to the following sentence on page 20 of the "Utility Poultry Club Year Book," in a paragraph headed "Poultry-Keeping and the Preservation of Foxes": "Quite apart from merits, the case is one in which a great deal of feeling on either side exists, and judging from the varied classes from which the members of the club are drawn, it is obvious that any action taken by the club would be viewed unfavourably by some of the members." I am extremely curious to know whether the practical members of the committee, and those members of the Utility Poultry Club who are trying to make a living (solely or partially) out of the industry, identify themselves with this admission that the club shrinks from the task of protecting business poultry keepers for fear of offending persons who are more interested in sport.—Yours, &c., W. M. ELKINGTON.

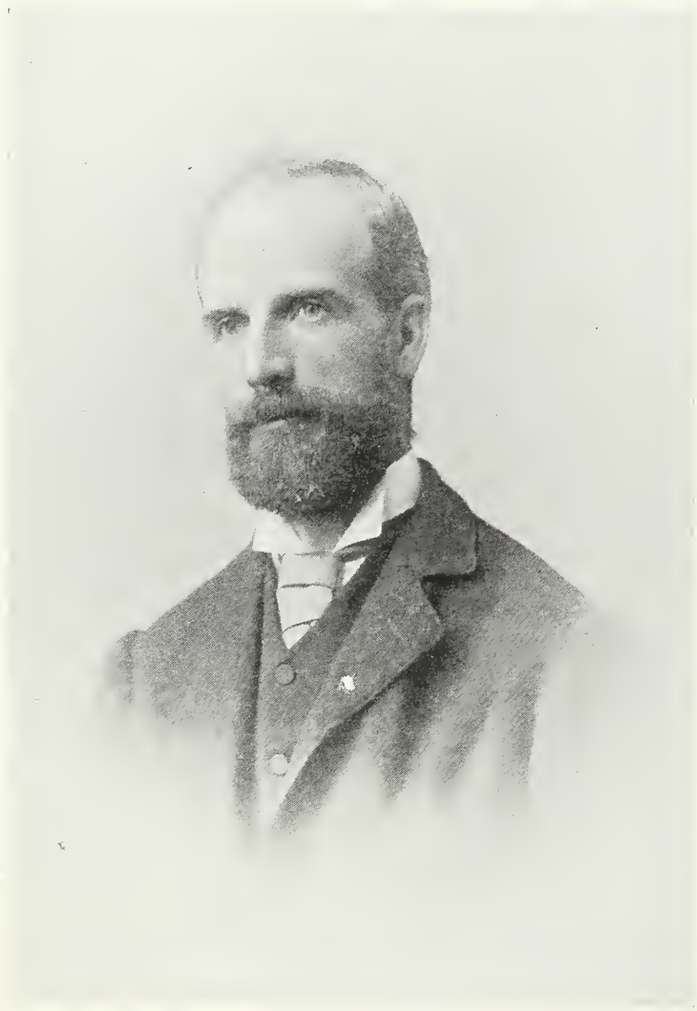
WHO'S WHO IN THE POULTRY WORLD.

MR. WILLIAM CLARKE.

(President of the Poultry Club.)

A YORKSHIREMAN by birth, Mr. William Clarke has lived the second and more fruitful half of his life in London, where, having acquired a knowledge of poultry early in his career, he began by utilising his back garden for the keeping of Minorcas, Langshans, and Hamburghs. Being convinced, even in these first days, of the good moral effects of poultry-keeping on the working classes, in addition to its fascination as a hobby, he was not long in putting his ideas on this subject into practice. He became associated with the late William Cook before the Orpington was on the market and induced him to lecture to an audience of working men. Out of this beginning grew the Tower Hamlets Society, with the foundation of which he was closely connected.

The moral aspect of poultry-keeping as an aid to habits of thrift has always interested him, and to



Mr. William Clarke.

encourage its growth among the poorer classes of the community he has been involved in considerable personal sacrifice. He has, he says, given away more birds and eggs than he ever sold, and this although he has always had good stock, producing many winners. On the introduction of the Orpington he became an enthusiastic supporter of the breed, and was for several years on the Orpington Club Committee. Fifteen years ago he added Leghorns to his stock,



Mr. William Reynolds.

becoming secretary of the Leghorn Club three years later, since when he has figured as a breeder of many varieties of the Leghorn and as a judge of the breed at sundry shows, including the International.

It is nearly twenty years since he first joined the committee of the Poultry Club. In the interval he has worked hard on many sub-committees; he was chairman of the Redistribution Sub-Committee. Elected a life member of the club in recognition of his services, he became, first, vice-president, and then president of that body, which position he now holds.

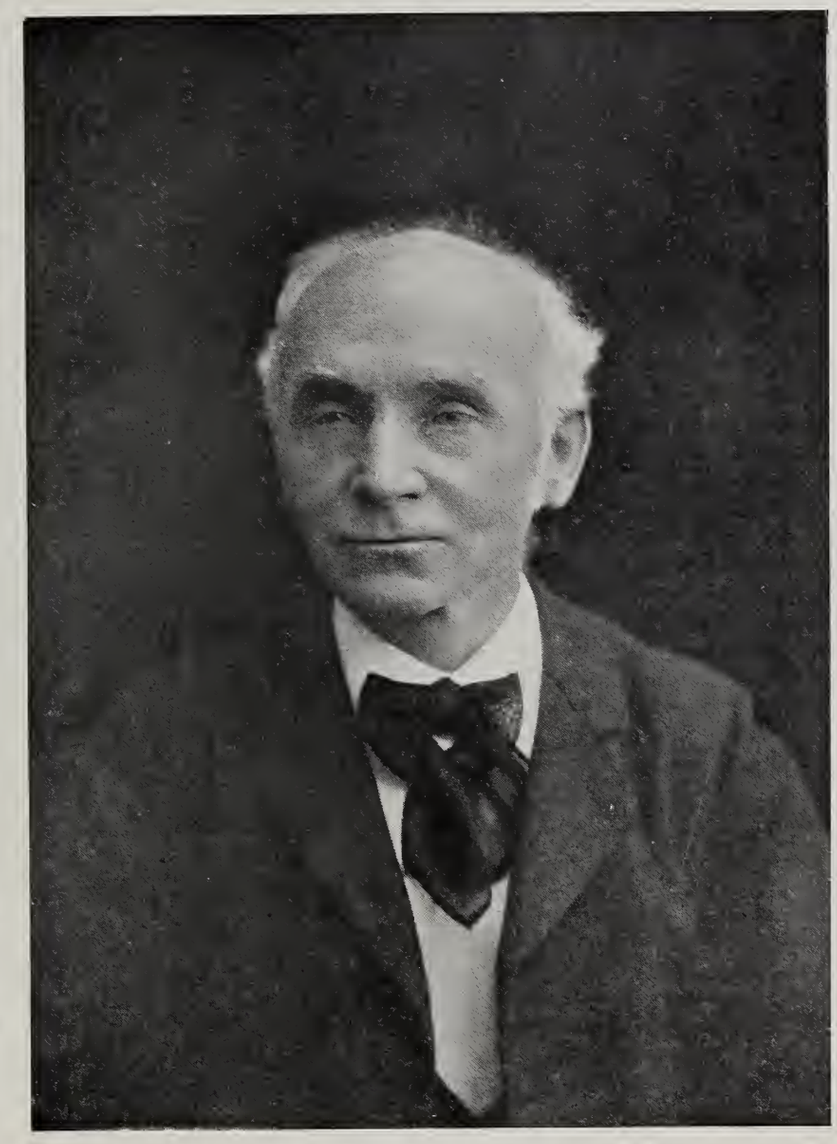
MR. WILLIAM REYNOLDS.

PERSONALITY and individuality mean much, and the more striking they are the greater the charm. Both these characteristics may fairly be attributed to Mr. Reynolds, of Street, Somerset, who has won for himself a standing among practical poultry keepers that ought to carry him far, and this

largely by constructive work, which must ever be the truest test of any man's efforts.

Poultry-keeping was not a hobby in his early life for lack of opportunity, but soon after taking up his residence in a country home about nine years ago it became a problem of great interest to him. At Leigh Nook Mr. Reynolds has established a well-equipped poultry farm, the chief object of which is the development and improvement of laying qualities, in which he has attained a considerable amount of success. With characteristic thoroughness, although professionally occupied in planning and superintending the erection of factory buildings and cottages, he nevertheless found time about five years ago to take a terminal course of instruction in poultry keeping at University College, Reading, of which he holds the Certificate of Proficiency.

One of the founders and promoters of the Street and District Collecting Depot Limited, formed to ensure the better marketing of produce, by means of which it has increased the number of poultry kept in that district, Mr. Reynolds was at first honorary secretary, but as the business grew, demanding more time, he continued the work as secretary. The depot proved successful from the outset, and, after six years' dealing with eggs, further developments took place a year ago, by the addition of an incubation station and fattening centre, both of which have entailed much labour and thought and have greatly extended the scope of operations.



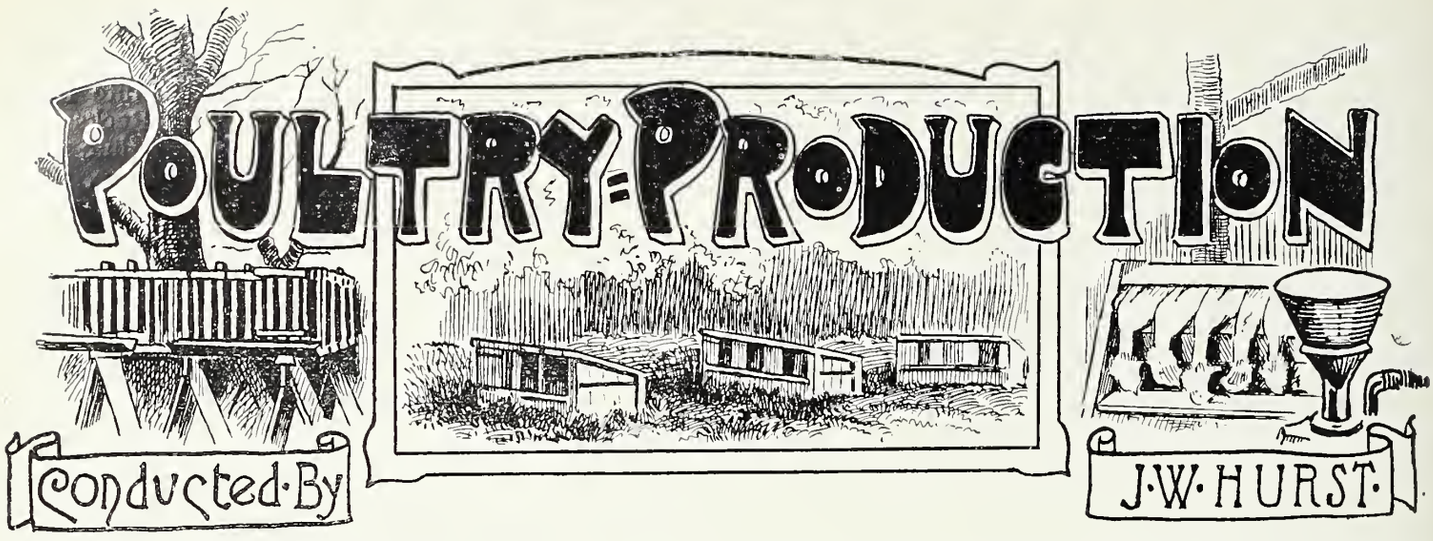
MR. J. PEDERSEN-BJERGAARD.

MR. J. PEDERSEN-BJERGAARD.

IN Denmark and throughout Scandinavia Mr. Pedersen-Bjergaard's labours and efforts in development of the poultry industry are universally recognised and appreciated, as well as elsewhere. A diligent student and earnest worker, his personality has contributed to the later prosperity of his native land. Mr. Pedersen-Bjergaard lived for a considerable period in America and started as a practical poultry breeder about thirty years ago, when he introduced into Denmark from the United States Plymouth Rocks and Pekin ducks, both of which were at that time new breeds. Differing from anything seen before, they aroused considerable interest in that quarter of Europe. A few years later he brought over Silver and Golden Wyandottes, again making a sensation. In the later 'eighties he bred some very good specimens of the then undeveloped Buff Leghorn, of which he exhibited a lovely pullet at the Crystal Palace show of 1887 or 1888; it was purchased there by Mr. L. C. Verrey.

As exhibitions became popular in Denmark, Mr. Pedersen-Bjergaard was frequently called upon to act as judge, and was a contributor of articles on poultry to agricultural and other journals, and was led by the growing interest taken in poultry-breeding to publish his first book on practical poultry culture in 1888, which appeared at a time when this industry was commanding the attention of Danish farmers.

Two years later he removed to Copenhagen, which necessitated disposal of his poultry establishment. In 1897 he was appointed editor of "Hönsegaarden" (The Poultry Yard), which the newly formed "Society for Practical Poultry Culture" was about to publish, and he still holds that position. Since then Mr. Pedersen-Bjergaard has written an "Illustrated Book on Poultry Culture," the sale of which has been very large. The latest task undertaken has been the recently issued "Illustrated Danish Poultry Standard," which has been enthusiastically received by the Danish and Norwegian Press. Mr. Pedersen-Bjergaard was president of a committee appointed to prepare this important work, and to him fell the duty, in addition to his share of the literary work, of planning and controlling the illustrations, which are so important a feature.



The Future Egg Producers.

We are at the commencement of the natural time for production, which is consequently the most fitting period for the reproduction of the producers; and the continuity of our laying stock depends primarily upon the hatching during this and next month. Nevertheless, the present is often a very trying month for the management of the existing stock, upon the incubation of whose eggs the future so largely depends. Raw, easterly winds, that so frequently characterise the days of March, are by no means favourable to a high percentage of fertility in eggs, or to the maintenance of an adequate production; but, on the other hand, the days are lengthening, and upon a well-sheltered range there is much to interest the birds and keep them active. Where the physical conditions are unfavourable, it is essential to keep the stock in condition, to encourage exercise, provide shelters or wind-screens, and pay particular attention to the feeding. There is sometimes a mistaken tendency (during the prevalence of inclement weather) to overfeed with grain, in the endeavour to promote scratching exercise; but it is very necessary for feeders to remember that the object of the scratching shed may easily be defeated, if the limitations of the method are not recognised. Moreover, for morning feeding, the hot-mixed and warm-fed mash is indispensable. The production and capabilities of the future egg-producers depend primarily upon the ancestry and their management.

Raising the Stock.

The few future layers that have already been, or are about to be, hatched require somewhat different treatment from that accorded the spring chickens raised for market—more particularly in the matter of feeding. It is one of the greatest mistakes, made by a multitude of breeders, to endeavour to raise fowls for different objects by feeding them all from the same food bucket. The amount of poultry food annually wasted by this and other modes of indiscriminate feeding must be enormous. The time saved by some poultry keepers in the making of one mixture, and throwing it down to be scrambled for by an indescribable rabble of all ages and descriptions of feathered stock, is as nothing to the ultimate loss of possible profit—and yet it remains the method of some even nowadays. The practical advantages of soft-food for rearing early-maturing market chickens need no insistence (at any rate at the moment), but with the object of raising stock the requirements are different, and a partial use of dry food is both convenient and beneficial. Grains and seeds form a part of the natural food of gallinaceous birds, but not the whole, and the chicken-rearer who neglects other foods for the easier "dry feeding" is substituting a part for the whole; forgetting or ignoring the fact that these birds are naturally to some extent omnivorous. Dry food may, however, very well be used much more freely in the case of young stock than would be economical for young table birds, the rearing periods differing so considerably, and the growth in each case being characteristic of the object. There are various mixtures and proportions, but the most commonly used ingredients include the following: Wheat, dari, millet, oatmeal, canary, maize, rice, hemp, meat, and grit—the larger seeds being kibbled. Otherwise the early management of these birds is largely involved in the correct management of their mothers, either actual or foster.

Early Goslings.

These youngsters make rapid growth under proper treatment, and it is advisable to start them in roomy coops, which—when the hens are removed—will serve for their accommodation for a further period; and the presence of the hen can generally be dispensed with by about the tenth day, the goslings requiring very little brooding and often sitting in the corners of the coop rather than under the hen before that time. They should be cooped on good turf, but as they quickly commence grazing there must be plenty of room to move them daily to a fresh patch; which is also very necessary owing to the rapidity with which they foul the ground. All rearing at present will be by hens, the geese being encouraged to continue laying for some time, but the hens and goslings must be penned beyond the reach of the gander, who may otherwise endeavour to lead them to the pond and exhaust them. During the first few days the food should consist of biscuit meal, or, instead of this, soaked stale bread may be used, with which a good proportion of finely-chopped dandelion leaves may be mixed—indeed, there is nothing better in the way of green food for goslings than the leaves of the dandelion. Towards the end of the first week a mixture of Sussex ground oats and a little boiled rice may be substituted for the biscuit meal or bread. A

point in connection with gosling-rearing is that as they grow, they graze to an increasing extent, at a time of the year when the feeding value of grass is improving; and that consequently their rations must not be increased in the same proportion as is necessary in feeding other feathered stock, so that ultimately their chief cost is the grazing value of the herbage—the proportion of the bought food depending upon the character and extent of the pasture.

The Need for Lime.

Although albumen forms a large part of the egg, it is not the whole egg. There is also the yolk, but it is not so necessary to trouble about the formation of this part, as besides albumen the foods chosen contain other elements in the shape of starch, sugar, gum, &c., which all go towards forming the yolk. The shell must be considered next, as for its formation the hen must take into her system a considerable quantity of carbonate of lime. Everyone knows that this element scarcely exists in the food, ordinarily given, consisting of roots or corn; yet the poultry keeper often forgets to ask the reason for the presence of little stones, grit, &c., which are found in the gizzard with the other contents, and which the fowl picks up from the soil. It is fortunate that this instinct of the hen counteracts more or less an ignorant poultry keeper's want of foresight. A wild bird will pick up enough lime to form the shells of the eggs she lays, which are only just sufficient in number for the purposes of reproduction of her kind, but with a hen kept in confinement it is otherwise. In the latter case the bird is kept under unnatural conditions and expected to produce eggs in unnaturally large numbers; therefore lime in some form must be supplied artificially if good results are wished for. It may be argued that the hen will somehow or other find the requisite amount of lime. This may be so, but it will be done at the expense of her digestive organs, which will have too great a strain laid upon them.

Work with Turkeys.

In addition to the rapidly growing work in other departments, those who stock turkeys must now devote increasing attention to these birds. Nominally February is the commencement of the laying season, but many more hens begin production early in March than during the previous month—a matter which is to some extent controllable by management; although, as April is in most circumstances the best hatching month for the general purpose of this production, there is no great advantage in getting eggs before the beginning of March. Any delay now is, however, inimical to the weight of the Christmas birds, because if these are hatched after April they will not make the same growth, so that it becomes essential to encourage production at the present time, and the dietary must be varied to suit the seasonable conditions and changes. The soft food ingredients may include barley-meal, ground oats, middlings, and greaves; and for grain feeding, wheat, oats, and barley, with cabbage and roots to supplement the growing herbage. Some breeders successfully induce production by feeding a morning mash of barley-meal, pea-meal, and greaves, with wheat and swedes at midday, and oats and barley at night, maize being sparingly added when very cold.

THE FEMININE SMALL HOLDER AND POULTRY.

By F. E. GREENE.

I HAVE no illusions about poultry-keeping. At one time, it is true, I was sorely afflicted with hen-fever, possessing a large number of birds, incubators, foster-mothers, and all the paraphernalia that go to build up the fortunes of the poultry-appliance manufacturers. Now I am content to watch my friends and acquaintances keep poultry. I use the verb advisedly, for, as a rule I find the poultry do not keep them. It is extraordinary how this fascinating bird, the hen, attracts towards it people who are the least likely of all to run it at a profit. I have known a studious Unitarian minister throw up the cure of souls for the fattening of Sussex fowls. He rented ten acres in Sussex and worked for eight years for



A Feminine Small Holder. [*Copyright.*

the benefit of his landlord and the astute higgler. He has now retired into his study, and has taken to literature for a living. Let us hope that he does not write the expert articles for the poultry papers!

I also know a graduate of Cambridge who farmed poultry in Ireland for five years, keeping most elaborate accounts. In the end he came out with £4 profit. This may partly account for Irish poultry being sold so cheaply in the English markets. He desired to write poetry, but said that he could not do so whilst he spent his anxious days in trying to determine the vagaries of the hen.

On the other side of the balance-sheet of my poultry experiences, I have come across a small holder in Buckinghamshire who made a living out of poultry on six acres of land. I also know a fancier whose income averages £1 a day from his

birds kept on a farm of fifty acres, and a fattener who makes a fair living by running his birds over the fields of a dairy farm, paying but a nominal rent for the use of the fields as each crop is harvested, for the farmer gets the benefit on the land of birds that walk with golden spurs.

Hen-fever, however, breaks out sporadically more amongst women than amongst men. There are very few women who control over an acre or two of land who can resist the temptation of keeping a few birds. Every farmer's wife keeps some poultry round about the homestead. It is rarely that one can get any reliable data from these ladies. Accounts are hardly ever kept. The corn and meal are pitched into the cows' corn bins in the farm granary, and the farmer's wife helps herself liberally from this bounteous supply of free food. The farmer himself is doubtful about the profits accruing from the poultry department. "There is no pay about them" will be the only statement you can get from him that approaches lucidity: but as this remark is also applied to his corn crops and his horned stock we may as well leave his wife with her pin-money undisturbed. It is from the small holder or his wife that one can obtain more satisfactory information.

I took some trouble to find out from the wives of the new race of small holders that people our countryside as to their methods of keeping poultry and what they managed to get out of them. From one of these I was able to make from her accounts for 1908 the following balance-sheet.



Grinding Corn. [*Copyright.*

BALANCE SHEET OF A SMALL HOLDER FOR 1908.

Dr.	£	s.	d.
To 32 stock birds, January 1, 1908, valued at 2s. 6d. each	4	0	0
,, Purchase of corn and middlings, &c.	14	7	6
	£18	7	6

Cr.	£	s.	d.
By 29 birds sold during 1908	3	9	6
,, eggs sold:—			
January 95			
February 219			
March 178			
April 202			
May 253			
June 139			
July 159			
August 161			
September ... 30			
October 5			
November ... nil.			
December ... 21——1,462	7	3	6
,, 37 stock birds, December 31, 1908, at 2s. 6d.	4	12	6
,, 3 turkeys	1	0	0
,, Profit and loss	2	2	0
	£18	7	6

Most of these birds are Buff Orpingtons, the rest being cross-breds. They have the run of a three-acre paddock when it is not shut up for hay. The eggs are sold to a shopkeeper. In 1907 this small holder, with the same number of birds, made a gross profit of £5 5s. 9d. No charge is made for either rent or labour.

I found another small holder, a lady farming on her own account, keeping poultry on fields adjoining some large game preserves. She says she has little difficulty in making poultry pay. Her birds seem to prefer to wander about the sylvan woods, where the pheasants are fed with maize, than to seek food on her own pastures. Curiously enough, they come home to roost with crops full of food and need no supper before retiring to rest. They earn their own living so well that I once bought half a dozen of her pullets to see whether I could profitably employ this living-earning strain on my own farm, but as I fed them daily they seemed to lack the incentive for gain. This lady rears annually a large number of turkeys, and finds them even more profitable than fowls.

The last lady I have interviewed is Mrs. Lambert, of South Park, South Godstone, who is the wife of a small holder, the owner of twenty-six acres of clay soil. Here I was fortunate enough to take some excellent photographs illustrative of Mrs. Lambert's out-of-door activities. Mrs. Lambert is a whole-hearted devotee to the Simple Life. In summer she sleeps in a tent, rising at the call of the lark to feed her little chickens. She wears sandals, adopts a rational short skirt as her working dress, is a vegetarian, grinding her own whole-meal flour in an excellent hand-mill for the baking of her home-made loaves, and her tanned skin bears all the marks of a life lived under the sun and in the wind. She is a great gardener, and when I arrived had been digging over one of her poultry runs with a spud. The bulk of the potato crop raised last year on this holding was

dug and planted by Mrs. Lambert herself, and the soil is of a heavy clay! Most of the "chat" potatoes have been used for boiling up with the meal for the fowls, and, of course, the waste greenstuff grown here is thrown to the fowls in the winter when they are unable to obtain grass.

Though Mrs. Lambert is a great gardener—for besides the outdoor gardening there is the greenhouse with its neat little boxes of tomato plants, in which the young shoots were appearing—her greater interest lies in poultry-keeping. As I was talking to her a Houdan cockerel arrived in its wicker coop from a local fancier, and I managed to take a photograph of its new owner examining this future lord of a pen. I told her how I had at one time bought a couple of Houdan cockerels from a well-known firm at half a guinea each, and I had to return both of them as not being up to the mark; and I eventually got a much better pair of birds. Thereupon Mrs. Lambert recounted her troubles with poultry dealers and how she had bought birds from two different firms with a town address who advertise largely.



"IN SUMMER SHE SLEEPS IN A TENT." [*Copyright*

"Like most beginners," she said, "I made the mistake of buying where I saw the prices were low. In one case the birds were so bad that I returned them, and after much difficulty got my money back. In the other case I did not trouble to pay the return carriage, but kept the birds.

The less reputable dealers are aware that their customers will probably not go to the trouble and expense of returning birds which are often covered with vermin. THE ILLUSTRATED POULTRY RECORD would be doing a great service to poultry keepers generally if they would help to stamp out this verminous product of the poultry-advertising world.

The excellent, well-timbered houses are made by Mr. Lambert, who told me that he could make two of them with one-inch matching in ten days. I noticed that in order to keep the nests inside the house from being fouled he nails three or four slats of wood, reaching to the roof, over the boxes.

Most of the chicken corn is baked in the oven before being ground in their own hand-mill. The slight baking facilitates the grinding by preventing clogging. By grinding her own meal-wheat, oats, barley, buckwheat—all in turn are put through the machine—Mrs. Lambert insures her fowls consuming meal which is not adulterated with rubbish. A smaller machine, once used for grinding corn, now grinds the broken crockery into grit.

She uses a 100-egg-incubator, and is just now busy fattening birds in the fattening-coops. Her customers are found locally and in London. Her favourite bird for egg production is the Ancona. She keeps a few Aylesbury ducks, and with these, on Christmas Eve, she had an experience which brought her into touch with the "Surrey Union Foxhounds."

In the middle of the night her ducks, those wary night-watchmen, gave the alarm, and a great quacking was heard. Like most people, however, on a winter's night, she and her husband only listened, and went to sleep again. In the morning she found one of her Aylesbury stock ducks on the point of death with a scar all round its neck, like a fur tree which had been ringed by rabbits It was duly examined by experts, who decided that it must have been the bite of a fox. Thereupon, Mrs. Lambert wrote to the secretary of the "Surrey Union Foxhounds," and claimed 7s. 6d., which she reckoned was the sum she would have to pay a duck breeder to replace a stock bird In the course of a fortnight the money was paid.

A little time ago the staghounds came over her holding, and the huntsmen deliberately broke down a fixed field gate. A complaint was duly lodged, and in due course a new gate arrived on the scene, and was erected in the place of the old one.

"I do not complain about the treatment," said Mrs. Lambert, "I have received from the Hunt about here, but I do resent the liberty that they take in riding over my fields without as much as a by your-leave, a liberty which is a survival of the manners of the middle ages."

NATURAL HATCHING.

By J. W. HURST.

OLD-FASHIONED things are not necessarily to be decried on account of their antiquity. The sitting hen is old-fashioned, but she is by no means obsolete—at any rate in this country, whatever may be the case elsewhere. I have never had much fault to find with the sitting hen, although I have sometimes grumbled at her absence when I have particularly required her services, which is of course the manufacturer's opportunity. Nevertheless, such lapses on her part have produced no sympathy with those extremists who claim that the mechanician has improved upon Nature, a claim which is as unjustifiable as it is presumptuous. After all, the charge of being old-fashioned that is hurled at Biddy from such a quarter encourages the *tu quoque*—there were mammals in ancient Egypt!

Both have their place in the economy of the poultry industry—the hen and the machine—and, having experienced the uses of the incubator, it would be hard to abandon it now; but I would thankfully continue to employ the hen when she is available.

I have a great respect for some of the methods of the gamekeeper, remembering that both he and the poultry keeper deal with birds of the same natural order and family. The lore of the man who lives so close to Nature, as does the gamekeeper, is not to be despised. I did work of a very practical description for some years in close juxtaposition to a large game preserve, and although I flatter myself that the keepers benefited in some particulars by being my near neighbours, I gladly admit my more considerable indebtedness to their wide acquaintance with the secrets of the wilds. If you have never watched a gamekeeper making a nest for our friend, the sitting hen, you have something still to learn. He uses a turf, some moss—perhaps a wisp of soft hay—and fashions a real and very natural nest. If you have never seen his treatment of the sitting hen, individually and collectively, you have missed an object lesson in systematic management. The Sussex henwife has a more particular knowledge of the requirements of chickens during the rearing period, and although neither she nor the gamekeeper can give very lucid or scientific reasons for the faith that is in them—and its active expression—the budding poultry man who is content to learn in Southern woods and pastures will (if the capacity exists) receive a liberal education in natural methods.

The management of the sitting hen has a mu h more direct influence upon the results of hatching than may appear to the casual observer, and if hatching is conducted upon any sort of commercial basis the work must be extensive, and on that account alone the economics of industry demand system; but there are other deeper and less obvious reasons for method in the conduct of natural hatching. To take one fact of incubation, that is not always appreciated at its full value by managers of sitting hens (if, indeed, they know anything about the matter at all), although some users of artificial appliances make some sort of allowance for it in their operation of the machines—the temperature of the heating body is in nature balanced with that of the eggs undergoing incubation, at the various stages of embryonic development. Without, and perhaps unnecessarily, entering into the intricacies of this matter, it is enough to know that there are more or less important reasons for making sure that a sitting hen shall retain her own nest of eggs throughout the whole incubating period, and where numbers are sitting together this can only be ensured by systematically taking them from and returning them to their own nests at feeding time—fastening them meanwhile by a string from the leg to a peg driven in the ground.

This is only one point of management, but as a labour-saving device it is not unimportant, and it involves the operations of feeding and the coincident examination of the nests—both of which are matters of moment. It is during the time that the hen is feeding and exercising that the attendant has the opportunity to clean any fouled nests and eggs, although if the hens are allowed sufficient time off their nests for the exercise of the necessary excretory functions there will not be much work in that direction.

The one daily meal must be all sufficient for the needs of the occasion, as regards quality and quantity. No soft food should be given during the period, the dietary including only suitable grains with green food and water. The best grains for the purpose are maize and wheat, in proportions consistent with the climatic conditions, and the green food may be such as is seasonable and ordinarily fed to fowls. An ample supply of grit is imperative, particularly in view of the conditions under which a sitting hen exists for three weeks or more; and the water must be fresh and be given in clean pans. By the adoption of the methodical treatment indicated each hen is assured her full share of food, as regards quantity and proportion; each is off her nest for a sufficient period, which is under the regulation of the attendant—an arrangement beneficial alike to the hen and the eggs; and all are returned and shut in without loss of time and the vexatious hunting up of wanderers.

For outdoor hatching—when and where it is possible—the nest-box of the appliance maker is preferable, but for use under cover of a shed the orange or onion box is inexpensive and ready for use without much amateur carpentry. The number of eggs to set now should scarcely exceed a dozen, although a little later some hens will easily cover fifteen; but this must be according to judgment, in relation to the hen's size and characteristic feathering.

Until the eggs chip, the daily routine of management is almost unvaried, but when that period arrives matters must be left to the hen. I have never met anyone whose assistance at the time of the chicken's exclusion has been of any ultimate value. Matters must then be left to take their course, with the cheerful assurance that if the previous work has been along the right lines the result will be the best possible under all the circumstances of natural hatching in a state of domestication—and the old-fashioned hen will triumph.

LAYING COMPETITIONS OR TESTS?

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—Whether or not the Utility Poultry Club is utilising its funds and power in the right direction in organising competitive laying matches under conditions that would obtain in very few poultry yards is a debatable point. It is, of course, an undeniable fact that these competitions stimulate the breeders of utility stock to improve their laying strains, but it has very reasonably been pointed out that a danger lurks in this, just the same as in breeding for show points, which has been stimulated by exhibitions. Where there are rich rewards for excellence in any particular traits (and there are rich rewards for winners in laying matches) there is the temptation to carry breeding for these traits to excess at the risk of sacrificing other qualities. So much has been argued, and, though there is no reason to suppose that excesses have been reached, the possibility remains. In stimulating the interest in laying stock these competitions directly and chiefly benefit the specialist breeders, and only indirectly and in a minor degree the rank and file of utility poultry keepers through the distribution of improved stock. This latter is a very desirable consummation, but it is an important question whether, by organising something more in the nature of a test than a competitive laying match, the Utility Poultry Club would not more substantially benefit the poultry industry. On many occasions it has been urged that a competition or test upon similar lines to those recommended to farmers would be instructive and interesting, and though there are undoubtedly serious obstacles in the way, such as the difficulty of providing even conditions for all competitors, these obstacles should not be unsurmountable for an energetic body like the Utility Poultry Club.—Yours, etc.,

W. M. ELKINGTON.

POULTRY-BREEDING: PROBLEMATICAL AND POSSIBLE.

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—On reading your article on "Poultry Breeding: Problematical and Possible," in your issue for February, no doubt many of your subscribers must have been impressed with the statement that, so far as egg production is concerned, "the most prolific races naturally are those in which there is not a large frame and abundant muscle and feather to produce and maintain," and that "increased size of body means reduction of number of eggs laid."

No doubt this is the case, but may I be allowed to point out that there is yet another very weighty consideration with regard to large fowls kept as egg producers, and that is the quantity of food they consume, and, further, the comparatively long time they have to be kept before they begin to lay.

Probably hens require about one-twentieth of their weight daily in food. Thus a Leghorn weighing, say, 5 lb. would require 4 oz. of food per diem, or 1 lb. 12 oz. per week. She might be expected to lay at five months, by which time she would have consumed 37 lb. of food of the value of, say, three shillings. A hen of the larger sitting breed, weighing 7½ lb. (which is half as much again as the Leghorn) would consume 2 lb. 10 oz. per week, and might be expected to lay at eight months, by which time she would have consumed about 87 lb. of food of the value of, say, seven shillings. By this calculation there is a difference of four shillings in the expenditure on the two birds up to time of laying, and the difference in the cost of the food of the two birds goes on so long as they are kept. By the end of the second year the larger hen will have cost 7s. 6d. more in food than the smaller one, and will have had at least three months less laying time. During that three months the little hen may have laid a good many eggs, which may be valued at 2s. 6d., making the smaller bird more profitable than the other by ten shillings.

I do not assert that this statement is absolutely correct, but it is certainly approximately so, and it serves to illustrate the importance of selecting laying stock with a due regard to their eating capacities. The number and size of the eggs laid, and their market value, do not, necessarily, affect the general correctness of the calculation.

I have often wondered at the little thought that poultry keepers seem to give to the size of their birds.—Yours, etc.,

H. T. W. ALLATT.

Thumblands, Farnham.

IMPORTANT DATES

IN RELATION TO THE POULTRY INDUSTRY.

1878.—Introduction of Rouillier incubator, Paris Exhibition.

1882.—Invention of Hearson incubator.

1885.—Poultry classes included in Royal Agricultural Show, Preston.

1892.—Instruction in poultry-keeping commenced by English County Councils.

1895.—Table poultry section established at Smithfield Show.

1896.—Poultry courses begun at Reading College.

1896.—Utility Poultry Club formed.

1898.—National Poultry Organisation Society founded.

1899.—International Poultry Conference, St. Petersburg.

1899.—First National Poultry Conference, Reading.

1907.—Second National Poultry Conference, Reading.

1908.—Departmental Committee on Poultry Breeding in Scotland appointed.



Early Exhibitions.

With the beginning of March the 1908-9 shows may be said to have closed; and, at the time of writing, the next season will not open until May, when classes for chickens hatched in 1909 will be given at the Bath and West Exhibition, to be held at Exeter from May 26 to 31. So far as I am aware, March will draw a blank this year, and except for two or three minor shows on Easter Saturday and Monday, and a Scottish event on the 27th and 28th, April will also be a barren month. It is interesting to note that fifteen classes are scheduled for chickens at the Bath and West, nine of which are for table fowls and ducklings. Provision is made for all breeds of fowls, two classes being set aside for birds of the sitting breeds, although Wyandottes and Faverolles will have to compete with most of the popular non-sitters, and Game and Malays are classified with the "any other varieties." Following closely on the Bath and West will be the Royal Counties Show at Reading from June 8 to 11; and during the same month there will be the Royal Show at Gloucester from the 22nd to the 26th. At both of these events there will be several classes for chickens.

1909 Chickens.

At the Bath and West it is specified that birds eligible to compete in the chicken classes "must have been hatched after December 31, 1908, and must not have moulted all the chicken flight feathers of the wing." Nothing is stated about the exhibits having to wear Conference rings, nor presumably will there be any necessity to apply the so-called "bone test." The only guarantee that the birds are chickens of 1909 is that they shall still retain some of their young flight feathers. But that is no guarantee of a fowl's youth—none at least that the bird is under five months old; and many a cockerel and pullet has retained some of its chicken flight feathers until it has reached the age of eight months, and even more.

Chicken Tests.

Although schedules for the Royal Counties Show are not to hand at the time of going to press with the present issue, it is safe to presume that the conditions for exhibits in the chicken classes will be the same as on previous occasions. These are that the chickens shall be bred in 1909, and that the judges will be instructed to examine the birds carefully and disqualify any which, in their opinion, are over age. At the Royal Show, which is again to be held under Poultry Club Rules, the conditions are, "By cockerel, pullet, young drake and duckling are meant birds hatched in 1909," and the birds will be subject to the P.C. Rules. In both instances, therefore, the judges will have to apply whatever tests they think best. It is always an unpleasant duty for a judge to disqualify a bird for over-age; but those engaged at the big shows are "strong" men, and they will not shirk their responsibilities.

A Unique Show.

It will be remembered that in last month's notes I referred to a show which in my opinion was held in unique circumstances, that is, prize-money was allotted after all expenses of the exhibition had been paid. At this event there were over 160 entries in the poultry section, which consisted of twenty-five classes. The average entry was not very big, just under seven a class; but the highest first prize was only five shillings, while in the largest class (seventeen entries) the prizes were 4s. first, 3s. second, 2s. third, and 1s. fourth. The entry fees were 1s. members and 1s. 6d. non-members, and the amount of prize-money to be paid out amounted to £6 3s. 6d. I am not able to say how many entries were made by members at the reduced fee, but it will be seen that there cannot have been a great sum appropriated for expenses. The society did not, of course, run the affair at a loss, and, as can be imagined, no prizes were withheld. It is perhaps questionable if a larger show could be conducted on such lines. Certainly it guarantees the promoters against loss, and ensures the exhibitors getting a certain percentage of the entry fees; but such small prizes as were offered were somewhat out of proportion from the non-members' point of view.

Hatching Results.

Despite the inclement weather which has recently been experienced in all parts of the country, the reports so far to hand indicate that the hatching results are quite up to the average of those of previous years. The storms have perhaps been most severe in the North, but apparently they have not seriously interfered with the breeding operations, and hatching is proceeding in a most satisfactory manner. I hear from several fanciers, who are also breeders, that eggs are proving remarkably fertile, and that the chicks are coming out strong. There is every possibility, therefore, that the early summer shows will be well supported.

Novice Competitions.

Since the novice competition promoted by Mr. H. W. Buckland last season has done so much to bring the Columbian Wyandotte to the front, I hear that the Partridge Wyandotte Club, which has ever been ready to assist the novice, has under consideration the organisation of a similar scheme. It is proposed to guarantee classes for Partridge Wyandottes at six exhibitions next autumn, and in each case they will be taken by different judges. The prize-money will be arranged on a generous scale, with a correspondingly low entry fee. Each award will be worth a certain number of points, and at the end of the competition they will be totalled, and valuable prizes are promised for the highest scores, the president of the club already putting up a three-guinea cup as the first prize, while the scheme is having the support of most of the leading fanciers. The competition will be confined to genuine novices (those who have never won a cash prize of 20s. nor employed a regular skilled poultry-man), and the prizes will be open only to members of the Partridge Wyandotte Club. Full particulars of the scheme can be obtained of the hon. secretary of the club, Mr. W. M. Elkington, Ladye's Hill, Kenilworth

Licensing Poultry Judges.

I notice that a discussion on this very ancient subject is being carried on in a contemporary. It has been thrashed out long since and, so far as judges in this country are concerned, the plan has been found unworkable. And very rightly so. I believe it is in vogue in America; but "over there" the wonderful system of score-carding fowls at shows is the order of the day. Here we do things by comparison, and each judge places his own construction on the standards of excellence. That is as it should be, since even "doctors differ," and it would be impossible for any standards to be so fixed that all judges would agree as to the exact number of points to be deducted for any supposed defect. No; the licensing of judges is not likely to be in our day, since the present system is undoubtedly the best which can be followed. The Poultry Club, as the ruling body in the Fancy, might have a list of judges whom it can confidentially recommend; but no such list exists at present, despite what is thought to the contrary in some quarters.

SOME RECENT EXHIBITIONS.

IT is customary for certain Scottish poultry societies to hold their annual shows on New Year's Day, and among them are some of the most important events of the year. The choice of date is no doubt on account of the fact that over the Border it is a Bank Holiday, and poultry exhibitions held thereon generally attract a good "gate." There were ten Scottish shows on January 1 and 2, four of them being two-day fixtures, but on the whole they do not appear to have been as successful as those of past years.

The largest classification was offered at Kilmarnock, but although the quality of the birds was as high as ever, the entry was somewhat below the average. And it was no doubt due to the paucity of entries in some breeds that the executive amalgamated certain of the classes and withheld prizes in others. As, however, the committee advertised in the schedule that "Full prize-money will be paid," it was hardly fair to withhold some of the cash prizes Paisley is generally considered an important poultry show. At the late event the prize-money was higher than that offered at any of its rivals; but there was not a particularly strong entry. It may be that Rule IX.—"Unless more than seven pens are shown of poultry . . . in any class the prize-money shall be halved"—had something to do with it. As it was, there were no fewer than thirty-six classes in which the entry did not exceed seven.

Forfar was another important show held on January 1; and since the district is a noted Game centre, it was not surprising that Game and Old English Game, both large and Bantams, which were generously catered for, were forward in good numbers. Bantams, which were judged by a specialist, were the chief feature at Dunfermline Show. The most important of the English New Year's Day events was that held at Aspatria. The visitor to this Cumberland fixture generally finds a very representative display of Old English Game fowls and Bantams, since it is from the district round about Aspatria that some of the famous exhibitors of the Midlands secure their chief birds for the shows, while many of the best pit Game fowls of the world are bred there. Entries at Hexham Show were also strong; in fact, with an average of nineteen a class it must have been a record turn-out of poultry. And despite the numerous shows held on the same day and providing adequate classification for Old English Game, it is remarkable that the four classes for that breed brought together eighty-seven entries, while in the two for Old English Game Bantams there were seventy-four exhibits.

The Buff Leghorn Club held its annual exhibition on January 6, and although somewhat late in the season for a club show, it proved to be the best collection of Buff Leghorns ever got together. The first show of the recently-formed Belfast Poultry and Pigeon Society came off on January 12 and 13, and, taken all round, it was a great success. As is usual with most Irish poultry shows at which competition is open to the United Kingdom, a number of English fanciers visited the event with strong teams of fowls, and carried off many of the chief prizes. The "haul," however, was not so large as it has been, since the Fancy in Ireland is steadily advancing, and each season sees better birds being exhibited in the island.

The Blue-Laced Wyandotte Club held its fourth annual show at Sutton Coldfield on January 13, but it was not a great success. A class was included for Buff-Laced Wyandottes, and there were two for Bantams of either variety. There can be little doubt that both these varieties of Wyandottes are especially difficult to breed to standard requirements; and as they fall short of other branches of the family from the utilitarian's standpoint, it is not surprising that they do not become popular. The first great show of Hamburghs and Hamburgh Bantams, held at Bradford on January 23, was an unqualified success. There were well over 350 entries, and quality was of the best, and it was undoubtedly the best show of the breed ever got together. The classes for Blacks

were by far the biggest in the exhibition, and since those of all varieties restricted to novices were strongly supported, it looks as though the once-popular Hamburgh is regaining its old position.

Both Nantymoel and Wigton Shows on January 27 and 28 were important events, and at the Cumberland fixture there were no fewer than 196 entries of Old English Game, and 202 of Old English Game Bantams. Banbury Show on the 2nd ult. was a nice affair, and so was Cardigan on the following day. Nantwich, on the 5th ult., was not quite up to its usual form; but there was a fair display at Moira, Ashby, and at Calow, Chesterfield, on February 6. Two Derbyshire shows were held on the 13th ult., and there was a small event at Thirsk on the 19th. The last of the Buckland Novice Competitions for Columbian Wyandottes was held at Spennymoor, Durham, on February 20; and the 1908-9 show season closed with displays at Gorseinon, Glamorgan, on the 25th ult., and Tibshelf, Derbyshire, on the 27th ult. The next show of any importance will probably be at Darwen on May 8, while the first of the chicken shows will be the Bath and West at Exeter, from May 26 to 31.

MME. PADEREWSKI'S WHITE ORPINGTONS.

By A. J. IRELAND, Switzerland.

THE sensational announcement made some time ago that Mme. Paderewski, the wife of the celebrated pianist, had paid 38,000 francs (£1,520) for five Crystal White Orpingtons (a cock and four hens) created more than a flutter in the dovecotes—it called forth a regular storm of crowings, cacklings, and flappings of wings in the poultry-yards throughout the world. But the repeated assurances of those connected with Mme. Paderewski's poultry-farm have set doubts at rest. Mme. Paderewski, who is a keen and successful poultry farmer, has specialised to some extent in Orpingtons, and has many very fine black and buff birds. So when she saw these Crystal White beauties at the Madison Square Gardens Show, in New York, she promptly purchased the five birds which are now the pride and glory of the Riond Bosson Farm.

In the United States these birds have won many prizes at the great shows in New York, Boston, Chicago, Jamestown, and elsewhere. And they have commenced their career in Europe by winning a special prize and the highest commendations of the judges at Lausanne. It is probable that they will be seen at all the great shows on the Continent and in England in the near future; and it is confidently expected that they will win many honours.

Mme. Paderewski's group of birds are very fine specimens of the breed. Their plumage is white, glossy—almost iridescent—and their combs and wattles are bright scarlet. When shown at Lausanne they were rather thin, and somewhat out of plumage, after their long journey. But they have since quite regained their beauty, and have considerably improved in condition, and they bid fair to take their place as the finest Crystal White Orpingtons ever exhibited in Europe.



MME. PADEREWSKI'S ORPINGTONS.

The most valuable of the five is the hen, Victoria, a perfect specimen of the breed, which has been valued at 2,500 dollars (£500) by American experts. Christina is, also, a very fine hen, and the two other hens, Lady Helen and Olga, though not quite so good, are worthy to keep them company. The cock, Crystal King, is a fine bird, but he is rather too straight-breasted to please the experts who have seen him. In all cases the plumage of the birds is pure white—they have not a single dark feather among them to spoil their beauty.

Mme. Paderewski has thoroughly studied the industry she has taken up. Her farm, which is under the care of an English keeper, Mr. Harry Archer, of Buckinghamshire, is in a flourishing condition. In fact, Riond Bosson, where M. Paderewski has established the most successful fruit farm in Switzerland, will probably become one of the best known poultry farms in Europe.

WITHHOLDING PRIZES AT SHOWS.

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—The article on the above subject in the January number of the ILLUSTRATED POULTRY RECORD is one that all who are interested in poultry exhibitions should read and consider seriously before another show season comes on. I am of opinion that all shows held under "Poultry Club" rules should do one of the two following things: Give full prize money, if the entries in the open classes average, say, nine per class, or else adopt a sliding scale. If the latter, then full prize money to be paid in all classes having eight or more entries. I think it is unfair to exhibitors to have one or more prizes in a class withheld. Take an example where a second prize is withheld. The winner of the first prize takes full prize money and award, and the bird that is practically second is put off with a third, and the owner thus loses his proper award, and also gets only third prize money, which is, as a rule, about enough to cover the entry fee.

By adopting a sliding scale an exhibitor would get his full award (first, second, or third, as it might be) and prize money as specified in schedule. The question arises in my mind as to whether a show which advertises "full prize money" can be considered as giving it when several prizes are withheld in various classes. I quite admit that show committees are in a difficult position, and it is very hard on them if they have to face a big deficit, especially so when the committee are working men (and a great many of them are) who do the work for love of the Fancy.

I have had some years' experience both on show committees and as secretary, and know that it is a difficult matter to please all exhibitors, and at the same time make the show a success; and that is why I think that either of the ways I have mentioned would help to make for better entries at shows, and give exhibitors less cause for grumbling.—Yours, etc.,

H. T. ATKINSON.

Tucker Farm, Warehorne, near Ashford, Kent.

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—I read Mr. Elkington's article in your January issue with considerable interest, but I do not think the situation will become so grave as he seems to suppose. The fact is that at the present time there are too many shows, and the smaller ones and less attractive are simply driven to the wall by force of competition. It is the smaller shows as a rule that shield themselves behind the regulation that permits the promoters either to withhold or reduce prize money, and I believe it is the inclusion of such a rule that is the cause of the demise of many ventures.

It is with shows as with everything else of a like nature; they must be made attractive to the exhibiting public and by inducing a good show of stock the "gate" is drawn and the success of the show decided. Exhibitors, and the amateurs no less than the professionals, take note of the fact of the risk, after the trouble of preparing birds for a show, of the possibility that in the event of winning first prize they may have to be content with prize money which does little else besides cover entry fee. And it is not human nature or sound business instinct that permits a person, even a poultry fancier, to do other than to take the best that is offered. And the show with the most liberal schedule and the fewest restrictions receives the best support and is generally the biggest success. The force of competition enters into the question of shows as it does in ordinary business, and it is a question of the survival of the fittest.

The view I take of show committees sheltering themselves behind a rule that may allow them to reduce prize money is that it is bad business, and it seldom if ever pays. Before a show is promoted there should be sufficient funds in hand to warrant the venture, otherwise there is bound to be considerable anxiety. And rather than having to award second prizes instead of firsts, better for exhibitors, the promoters and the fancy generally, that there never should have been such a show at all.

No success is achieved without some slight risk, and the poultry show that will receive the support of the Fancy to-day is the one with a well considered classification, good prize money, and reasonable entry fee, no objectionable one-sided rules, and freely advertised. Too many show committees are afraid of advertising, and this is a misguided attitude. If one has anything good to offer, nothing pays better than correct advertising in the proper quarters at the proper time. I am speaking from experience, as one who is spending a considerable sum annually in this way. I can point to several good shows which undoubtedly owe their unsatisfactory state to the prejudice with which some show committees approach the idea of spending a little money on advertising. No show can receive the support of exhibitors or the public unless its existence is made known, and the way to secure this is to advertise efficiently.

The withholding or reducing prize money rule, the cancellation or amalgamation rule, both court disaster if included in any schedule, and I do not know a show that is entirely successful that has ever adopted it.

As Mr. Elkington observes, this is a question with two sides, and it is very hard lines on the working-men promoters of the small shows, who have to be responsible for the losses; but it cannot be denied that many of these village show promoters are too impatient and issue their schedule before they have taken stock of their responsibilities. It is entirely a question of management, and each person has a different idea of running a show, no doubt, as of running a business. And notwithstanding, committees will continue to govern their shows by rules designed in accordance with their balance at the bank, and to meet their views in regard to the gambling element which at this day attaches itself to the promotion of a show of fancy stock.—Yours, etc.,

FRED TOOTILL.

Quarry Farm, Pool, Leeds.



Incubators and Insurance in the United States.

Fire risks have always to be taken into account when incubators and brooders are employed. Faulty construction increases these to a considerable extent. It is evident that this question is more serious in the United States than with us, possibly owing to the massing of greater numbers of machines in one building, to the use of long range brooder houses, and to the large amount of wood in ordinary dwellings. The National Board of Fire Underwriters have laid down rules and regulations for the construction of incubators and brooders, if they and the buildings in which they are placed are to be accepted for insurance. This act will be beneficial if it compels attention to safe building, but is already ensured by the best type of machines.

Metal Coops.

Brooders made of metal we know, but coops heretofore have generally been constructed of wood, sometimes not much even of that. A metal coop is announced from the States. Useful in some respects that material would undoubtedly be; but, apart from the additional cost, as metal is a rapid conductor it would be less comfortable, we imagine, than if built of wood. Perhaps it is designed to counteract parasites, and in that direction it should be successful.

A Maryland Poultry Farm.

On the way to Washington from New York, soon after leaving Baltimore, can be seen to the right on the hillside a large poultry plant. This is at Mount Pleasant, Havre-de-Grace, Md., and is owned by Mr. C. E. Bryan, who has developed a large establishment on the most approved lines. White Leghorns are the main stock, and the birds are given what is practically free range, with the result that the vigour of the birds is well maintained.

Profitable Egg Farming.

Dr. P. T. Woods has been telling in the *Reliable Poultry Journal* the story of an egg farm in New Hampshire that leaves the owner a profit of from £300 to £400 per annum, and has done so for many years. This is the Atherton Egg Farm, which has been conducted for about fifteen years. From the heading in our contemporary we thought that this was a find, as it is stated that "2,500 layers and 8,000 chickens are kept on five acres," but on further reading it is revealed that the farm consists of 200 acres, although five only are given up to the poultry alone. That fact makes all the difference. There is plenty of space available for change of ground. The farm is run mainly for poultry, out of which branch the profit is made.

Shows in Scandinavia.

In June next there will be a large poultry show held at Helsingor (Elsinore), famous as the birthplace of Hamlet. All the three great Danish poultry societies will share in promotion of this exhibition. A twenty-five years Jubilee Poultry Show will be held during the summer at Christiania, in Norway, and it is expected that it will gather a representative display of Scandinavian poultry and poultry breeders.

Progress in Peru.

The importance of poultry-keeping is receiving recognition among the nations of South America. At the National Agricultural and Veterinary School, Lima, Peru, a poultry farm has just been established for the purpose of giving instruction in this subject to students attending that institution.

The Boston Show.

The thirteenth annual exhibition of the Boston Poultry Association, held from January 12 to January 16, says a writer in *Farm Poultry*, was the best in recent years. Comparison with shows of eight or ten or more years ago is more difficult to make, for the relative importance of different classes has changed much in the last decade.

Nearly all breeds and varieties were well represented in numbers, and the quality in nearly all classes was high.

Eggs in the United States.

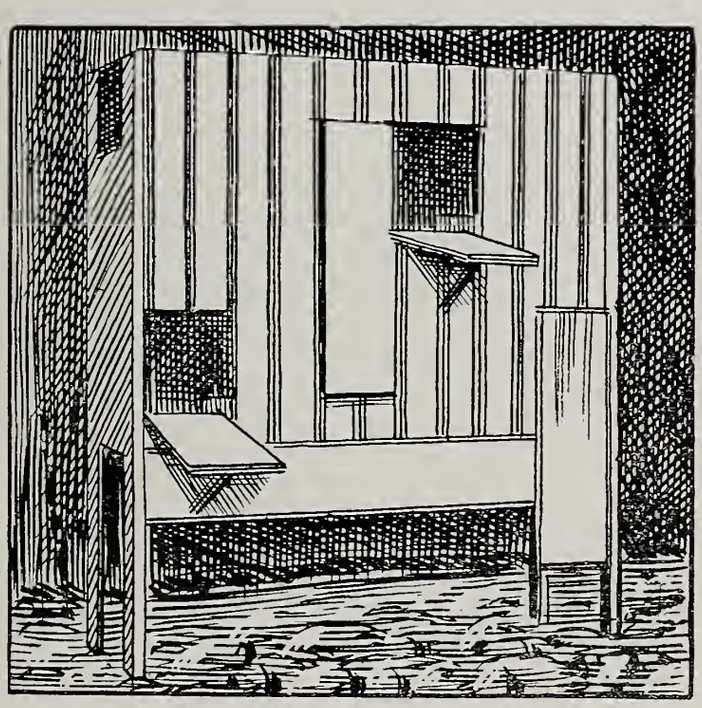
It is stated that on October 1 last there were 1,671,758 cases (360) of eggs within the cold stores of the States, valued at $12,533,185. To put these figures another way, there were more than sixty millions of eggs held at that time, representing upwards of two and a half million pounds sterling. Prices have been abnormally high there this winter, as everywhere else, and doubtless these stocks have disappeared long since.

TRAPNESTING IN DENMARK.

By W. A. Kock.

Adviser to the Danish Society for Profitable Poultry Culture.

DURING the last few years Danish farmers and cottagers have learnt that control of the yield of the individual animal, whether cattle or fowl, is of the greatest importance, and upon it depends the profit obtained. In the latter case that control is exercised by means of trapnests. The most prolific



layers are thus determined, and the eggs from these alone are used for breeding. As each chicken is toe-marked, it is thus possible to know the parentage of every bird in the poultry-yard or in the breeding-pen.

The trapnests employed in Denmark vary considerably, but in the majority of cases they are made in two compartments, one containing the nest and the other a place where the bird can await liberation.

The illustration given herewith shows a form which is used very largely by Danish poultry keepers, especially where there is a small amount of room in the poultry house. It has the advantages of simple construction and cheapness. The whole case consists of four trapnests, and as the entire back is removable it is easily cleaned. Two of the nests are shown open and two closed. When the hen enters and has passed the entrance, her weight depresses the lighting board, the front part of which is thus raised, and relieving a support, when she steps into the nest, as the front is the heavier, the board swings upwards and closes the entrance. Once there she cannot get out again until liberated by the poultryman, who in doing so records the number on her leg band. The advantage of the second compartment is that there is less risk of the egg becoming dirty or being broken. It is better to make the board which closes the front to fit nearly close, otherwise the hen may be strangled in her attempts to escape.

DEFORMITIES OF EGGS.

By R. Houwink, Jun.,

Secretary, Dutch Poultry Club.

LIKE all other domesticated creatures, hens are subject to deformities which rarely occur with beings living in a natural state, for mother Nature excludes abnormalities, deformed creatures which can hardly provide for themselves usually soon perishing in the struggle for life. They do not propagate, and degenerate descendants are thus avoided.

It is quite another thing with animals for which the conditions essential to life are made easy in the interest of men. Not only are their conditions of existence facilitated, but unnatural phenomena are often employed and cultivated, thus making the way clear for an ever-increasing number of abnormalities. Moreover, if inbred, these become more and more numerous, causing deformities (hermaphrodites), and such beings are unable to propagate, so that only the greatest care in connection with the taste of the breeder will keep them alive and assure their continuance. This article is written with a view to drawing attention to the different deformities found in poultry, both of the eggs and of the hens. In my annotations put down during the working of several brooders, I have gathered some instructive, though perhaps not very important, data. One does not ordinarily desire to use eggs of which one knows that the result will be doubtful, which is generally the case with abnormal fowls.

There are many eggs wholly unfit for hatching; for instance, those laid with shells too thin or open, or those too small or without yolks. These eggs are generally eliminated at once, but there are also unduly elongated eggs, which ought to have been originally two eggs, and, finally, eggs too big, with double yolks. Both the last categories show the quality of having double yolks; they are not so deformed, but one may happen to find some of them in the incubator, and in such cases I have been able to make some notes.

Do eggs with double yolks really hatch out? Do they really produce abnormal animals? I have but once succeeded in getting such an egg hatched; it was found in an incubator, together with a brood of more or less deformed eggs as above mentioned. These eggs came from a black La Flèche hen which often laid deformed eggs and eggs with two yolks. However, I have never discovered deformed young ones among her chickens. I only know that when counting the chickens of one brood I found one chicken more than was expected; one of the three eggs with double yolks, which on examination (5th

day) contained two germs of life, was proved, therefore, to have hatched. I was, however, not present at the moment they came out. While drawing up this article, I read in *L'Union et l'Indicateur Avicole Réunis*, that in France they are about to treat this question in a more or less scientific manner. They have tried to obtain eggs with double yolks from everywhere and a machine has been set to work. The result I hope to be able to communicate later.

However, these researches about abnormal eggs are not new. In connection therewith I recently found a very interesting book, bearing the title of "*Entstehung der Missbildungen*," *von Dr. P. L. Panum, 1860.* In this work the author observes that hatching eggs with double yolks has already been dealt with by Aristotle, at the same time relating the results which he has gathered. These results have been treated in such an ample manner that it is impossible for me to give even a summary. Dr. Panum comes, however, to the conclusion that it may be possible to obtain living young fowls from such eggs.

Dr. Panum tried to ascertain whether the chickens grow deformed during the embryonic period, and whether every yolk, separately fertilised, remains separate also, so that the egg can produce two chickens. He describes the development of 19 eggs, and the result obtained is this, that no growing deformity has taken place till the twenty-first day, but not a single egg lived after that day.

At any rate, it may be concluded, from the different results obtained, that these researches have led to the conclusion that it is advisable for everyone who likes to have, if possible, one chicken from every egg, never to fill his machine with abnormal eggs with two yolks in the expectation of obtaining as many chickens. In most cases the result is a negative one, and only from a scientific point of view may it be of some interest to make such trials. Even when succeeding in getting as a result a chicken like the drawing reproduced in the work of Aldrovandi, still it remains at the most such a curiosity "*as has never been shown in any fair.*"

Speaking of Aldrovandi, I trust to be able to show readers another time a very typical series of monstrosities among living hens, which have been reproduced in such a unique way that one would feel inclined to think of a comic display if Aldrovandi had not drawn and described his animals with so much care.

As a first result of brooding with abnormal eggs (with two yolks) Emka mentions, in *L'Union Avicole*, that some days ago two living chickens came out from such an egg.

THE DOMINIQUES.

By E. H. TURRELL.

THE American is said to be crazy after new fads and old relics. Certain it is that in the world of poultry he is prominent enough in the first-mentioned craze. A careful examination, which I have just made of the novelty classes of American breeds at Madison Square this season, leaves one point plain—viz., that in formation of new varieties it is convenient to form two or more at one time, these to be so related that the by-products of one will fall directly into the other, and so can be utilised to excellent advantage. In fact, if any observant person could have passed through the "Garden" I think he would have discovered decided possibilities for the above in some of the new Partridge varieties. Meanwhile, near at hand he could have seen old, staple breeds occupying fields so isolated that no infringement was possible, yet in need of a better backing and worthy in every way of a place at the very top. I wish to call attention at this time to the oldest American breed, the American Dominique, as one in every way deserving of a place at the very front both as an exhibition bird and a utility breed.

In history, this old pioneer breed has nothing to fear and much of which to boast, if placed in competition with any other breed in existence. Its supposed origin from fowls brought from the Dominica Island (pronounced Dom-i-ne-ca), in the West Indies, is probably correct, though difficult to prove; but that they were in America as early as Washington and have remained there through all subsequent periods of their country's history is easy to prove. I know one farm near Valley Forge, in America, which I believe claims this breed as its denizens, an unbroken strain, for over a century. This gives them the right to claim the title of "Our National Breed." In Washington County, New York, near Philadelphia, Pennsylvania, and in New England I discovered three distinct strains of this old breed which have been there, and have kept intact, to say the least, from time immemorial; and men by the score may be found, who have bred it and nothing else for from thirty to fifty years each, just because they considered it the best utility breed they could find.

So much for the history. But more important than history is utility, and the importance of this breed consists in the fact that it fills a place in the demands of commercial poultry plants which no other breed can honestly be said to fill, and which only a few breeds claim to satisfy at all in America. Anyone visiting extensively, as I did, the so-called utility poultry plants of America will soon discover two distinct types, far removed from each other, which pass under the same name. The first-class will call themselves utility egg plants. The production of eggs is the first aim of these concerns, and Leghorns, or a large infusion of Leghorn blood, is one of the first features to be noticed; but a careful inquiry into matters will soon elicit the fact that that concern is in need of some breed which will give better results in marketable poultry.

"Half-breeds" and "larger strains of Leghorns" have become a part of such people's vocabulary because here is a great need unsupplied. In the other type of concerns they will say they are in the commercial poultry business, producing eggs and poultry; but you will observe that here the fowls are nearly, perhaps quite, twice as heavy as the other concern used, and here, more than there, is the half-breed in evidence. If one visited this plant in New England during July, one would quickly discover that the old stock is being sold preparatory to moulting and resting time. Now, in my experience on a commercial plant for some years, the two months August and September have invariably proved my two most profitable egg months—profits only considered: but here is a man going out for the season,

just as we are ready to gather our best harvest. Trouble? Hens too heavy and lazy. Here is a demand unsatisfied. But midway between these two types of concerns comes a breed with a record of its own. It is yellow-skinned, plump as a partridge, not too heavy, about as big as a cross between the Leghorn and Barred Rock, and of the Barred Rock colour, with broad, spreading tail and wings, and agility and beauty in every line. Hardy and handsome, healthy and happy, and, I believe, one of the best for meat and one of the best of layers. But here arises another question—the question of Fancy. In spite of the statement of the American Secretary of Agriculture that the poultry products of America are assuming such vast financial proportions, they all believe in poultry as a "Fancy." Never was this more plainly shown than in the great poultry exhibitions of the present season in America. There and there only has this old breed been allowed to "dull." Not that it was not good enough, but it was at first "too common," I believe. Fads must be new, bigger, or smaller; something for a change to work for; so it was that the farmers continued to keep it while fanciers got something new. Then came its big, heavy, popular half-daughter, the Barred Rock, and the public had no time to perfect two breeds of the same colour at one time; so for a while its beautiful plumage was allowed to retrograde. To-day, I believe, it is up again, as a club has been organised for the breed in America. With a demand already far in advance of supply, so that every good chick that can possibly be raised this season has a ready demand awaiting him, and increased exhibition in the shows, and some of the best of breeders taking it in hand, I believe its future is to be even brighter than its past. With that barring which alone made the Barred Rock's colour possible, perfected as it is possible for us to see it in a few short seasons of truly scientific selection, with mating and breeding with colour and sex matings such as Americans ought to be glad to expend on their one "old time" breed—their "National Breed"—its destiny should be safe. With professional pride and care, with competition such as it is worthy to call forth, with its beautiful widely spreading wings and tail, with its blue bars bred to rival in beauty the bars of their nation's banner, I for one shall be glad to see it lifted to the place its history has already bequeathed it—"their nation's national bird, the American Dominique."

RUSSIA AND ITS POULTRY PRODUCTS.

(From a Russian Correspondent.)

THE export trade of poultry products is comparatively a new one for Russia, but has developed enormously of late years, and still keeps increasing by leaps and bounds, so that the question of its regulation has become one of extreme importance. This is true not only for eggs, but also for dead poultry. Some twelve or thirteen years ago there were hardly any big commercial plants at all in the country, where fattening fowls was carried out on rational and advanced lines, and high-class restaurants had to get their supplies of fattened *poulardes* from France or Belgium, as there were none to be had in Russia. Things have changed greatly. Some quick-minded people visited France in order to study the question at the source, bringing back with them skilful men to start business and secure for themselves the supplying of the best restaurants of St. Petersburg and Moscow with high-grade poultry. Most of the leading farms of that kind are run now on French lines by French managers, or by their pupils. Recently there has been a motion in another direction. People begin to realise that supplying restaurants will not keep the industry going, and that as the main export of dead poultry from Russia is to England, it is only just and reasonable to give the latter country the prime consideration, and to study the requirements of its markets. To encourage this feeling much is done by the Russian Government, which gives great attention to the development of poultry culture in Russia in general, and to the spreading of knowledge in Russia about England and what England wants in particular. To this end students have been sent by the Government to study the conditions of the poultry craft in foreign countries, in order to keep up with the times and to take back with them a sound knowledge of what is considered to be good poultry in England.

DANISH POULTRY STANDARD.

FOR the last three years a committee, consisting of Mr. J. Pedersen-Bjergaard (chairman and editor), Mr. F. Hansen, Mr. C. Jacobsen, Mr. W. A. Kock, and Mr. St. Calberg (secretary), have been engaged in preparation of a Danish Standard for Domestic Poultry, and the results of their labours are before us in the shape of a beautifully printed and bound volume of 264 pages, of which the illustrations are a marked feature. All save one, the Danish Landhens, which are represented in colours, are black and white, but the artist, Mr. N. Halkjær, has succeeded admirably in representing the type, and to a degree seldom met with, as the birds are natural yet essentially typical, without exaggeration; and, what is most difficult of all, he gives the plumage a distinctive character without abnormality.

In addition to the usual general features indispensable in such a work is an introduction to each breed, in which are given in a few words the characters and leading economic qualities, showing a regard to practical properties which is generally conspicuous by its absence in Standards. The descriptions are, in the main, in accordance with generally accepted canons, but are picturesque and clear, forming word pictures. It is satisfactory to note that with respect to sizes of the different breeds, where so many mistakes have been made by standard compilers, these have been put lower than in the English and other tables, more especially in the laying breeds, without unduly depressing them. In calculating the point scale of valuation very careful consideration has been given, except where the breeds are purely exhibition stock, in which cases reservation in that direction was unnecessary. In such races as are kept for practical purposes the aim has been to conserve the economic qualities, and thus prominence is given to typical shape and carriage, vitality and reasonable size, without exaltation of fancy points. The aim has been not so much to lay down an arithmetical law for judging as to give breeders, buyers, and sellers a guide by which they can estimate the values of the different positive and negative qualities of each breed.

POULTRY-FARMING IN BRAZIL.

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—Brazil is perhaps one of the least known countries, though by far the largest in South America, the language spoken being Portuguese. While in some parts the climate is very trying, and suitable only for agriculture of a strictly tropical nature, in others it is admirably suited for poultry-farming. Personally I find the State of Minas fulfils all requirements in the way of temperature and nature of land that a poultry farmer could wish for.

The native poultry of the country are small, undersized birds, and while signs are not wanting of slight attempts to improve the breed by introducing Cochins and Brahmas, nothing on any scale or with any system has so far been done. The lack of shows and the small price of table birds no doubt go a good way to account for the lack of interest, though there is a keen fancy for game birds of the fighting variety.

In 1907 I purchased a piece of rough wooded ground, about fifty acres, situated near San Joao del Rey, in the centre of Minas, with the idea of developing the high-class poultry industry. It was hard work at first, but after clearing the ground and erecting a few pens I imported from England two lots of Partridge Wyandottes. My eggs and chickens have always a ready sale at remunerative prices, being usually sold to farmers who wish to improve the type and size of their existing birds by crossing.

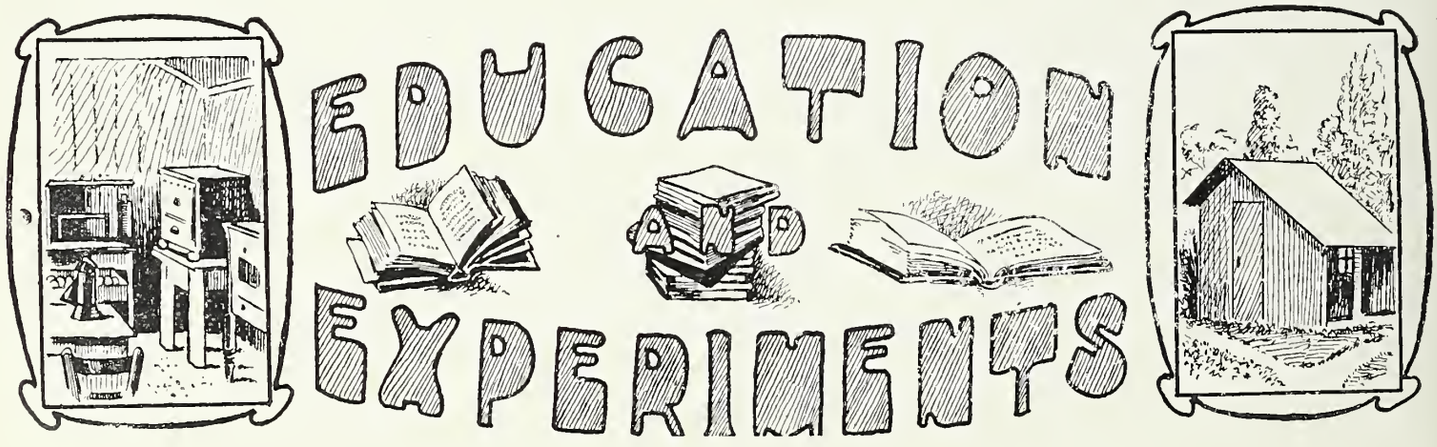
In August of the present year (1908) I exhibited five seven-months-old birds at the Grand Exhibition Nacional in Rio de Janeiro, and secured several prizes, including the Champion prize. At the close of the exhibition I was asked to plan out several poultry farms, including one for the National Society of Agriculture, which also came to me for their stock birds, and they have since elected me as an effective member of the society.

I have been very successful with incubators of the hot-air type, and am working in connection with Messrs. Hopkins, Causer and Hopkins for the sale of a machine known as the Alfa Pinto. On one farm I mounted as many as thirty 260-egg machines, which are giving good results. During the present year I have imported through Messrs. Hopkins, Causer and Hopkins over 100 head of thoroughbred poultry, some being for my own farm and others for friends, and all have given entire satisfaction. We have imported White, Silver, Buff, and Partridge Wyandottes, Orpingtons, Game, Brahmas, Leghorns, and Plymouth Rocks. The varieties I find most suitable to the climate and requirements of this country are Partridge Wyandottes, Orpingtons, Plymouth Rocks, and Game. Next spring there is to be an agricultural show in Bello Horizonte (the capital of the State of Minas Geraes).

Poultry-keeping is in its infancy in this country, but things are beginning to look up, so I am steadily getting together my breeding pens and endeavouring to obtain good classifications at agricultural shows. I am specialising with Wyandottes and Orpingtons.

Wishing your journal every success—and may its subscribers not be limited to your side of the pond.—Yours, etc.,

CHAS. CAUSER.



THE CORNELL UNIVERSITY POULTRY ASSOCIATION.

By FREEMAN S. JACOBY.

THE Cornell University Poultry Association, which is located at the New York State College of Agriculture at Ithaca, is one of the largest, if not the largest, student poultry organisation in the United States. Its membership consists entirely of agricultural students who are interested in the study of the problems of poultry husbandry. At the present time there are about fifty regularly enrolled members. The faculty act in the capacity of an advisory board, and the marked success of the association is due to a large extent to the aid of that body. The association elects annually a board of eight directors, who have the power to choose the officers from among their number. In this way the officers of the association are, without exception, chosen according to their ability to do the work, and without regard to the likes and dislikes of the various members.

The meetings are held twice a month during the college year, from October to June. It has always been the policy of the association to make the meetings as general in character as possible, and still be true to the aim of a poultry organisation. Usually a question box in charge of one of the members offers an opportunity to get a large number to take part in the meetings. Following this, several musical selections and a few stories put the listeners

in a good humour to hear the remarks of the speaker of the evening. The talks are limited to one half hour and are often illustrated by lantern slides, so that the public are more or less attracted to the meetings. The association is particularly favoured with noted speakers by virtue of its location at a State college. Besides the regular faculty members, visitors to the college are often asked to speak before the association. Debates between members of the club on poultry topics help to stimulate interest in the meetings and at the same time train men for speaking before granges and agricultural societies after leaving college. After the programme is over, the members usually enjoy a social time together, singing college songs and making the acquaintance of any new members.

The business affairs of the association are considered at alternate regular meetings and at special meetings. The work may be grouped under three heads: (1) Administration; (2) Extension; and (3) The Annual Poultry Show.

The work of administration consists in preparing the programmes and securing speakers for the regular meetings. The association is also engaged in selling books to poultry students and others, and by this means it receives part of its financial support. About two months before the annual show it is customary to send out an announcement and premium list to every active poultry man in the State. The work of soliciting the advertisements, compiling, editing, and mailing the booklet falls to the committee in charge of the work.

The extension work is not as fully developed as the other departments. It consists of sending student speakers to different parts of the county to address grange meetings on poultry topics. Such men usually receive their training in the meetings of the association by taking part in discussion and debates.

The most important event of the association, and the one about which the students are most enthusiastic, is the annual poultry show held during the third week of February. Poultry men are invited to send their birds to the show in competition with those exhibited by the students. Every student in poultry husbandry is permitted to select a bird from the university stock and enter it in the exhibit. During the two days previous to the opening of the show a room is devoted exclusively to the students, where they may wash, clean and prepare their birds in the best manner possible. The rivalry among them in this line is often so keen that some have been known to spend a whole afternoon preparing a single bird for the show room. The few prizes offered in this connection have greatly helped to stimulate the interest.

The exhibition is held in the large animal



CLASS IN THE STUDY OF POULTRY FOODS, CORNELL



POULTRY PLANT, CORNELL.

husbandry building, and is usually regarded by the casual observer as not far from the standard set by the professional shows. The exhibition coops are borrowed from the State, and are the same as those used at the New York State Fair. In one corner of the pavilion is located the book and periodical booth, where one may find nearly all the books and papers published in this country in the interest of poultry. The last poultry show had a fine exhibition of turkeys and pigeons, in addition to the usual showing of the more common types of poultry.

The first show was held in 1904 in a single small room, and consisted of only a few entries. The one scheduled for February, 1909, promises to be the largest in the history of the association, both as to the number of entries and the number of visitors to the exhibition.

For a short time in advance of the show, a professional



A CARPENTERING CLASS AT CORNELL.

judge gives a series of lectures and demonstrations on judging poultry. He devotes several afternoons, teaching the students the methods of judging the various varieties of poultry by practice work with live specimens. The result is that when the exhibition opens the students are eager to test their skill as judges. A prize is annually



awarded to the student whose score card corresponds most closely with that of the professional judge.

A poultry show of this kind has a permanent value in addition to the temporary pleasure which it affords all who participate in it. It gives the students a practical lesson in the management of an enterprise which they are likely to be called upon later to undertake. It also aids them to distinguish between good and bad birds, and inspires them with a desire to raise better poultry.

LEGHORN FOWLS.

NUMBER AND SIZE OF EGGS.

IN July last an interim report was published, recording an experiment conducted upon the College Poultry Farm, Theale, with the object of testing the various types of Leghorn fowls, commencing upon January 1, 1908. That report gave the results to June 30 last, and the present one embodies the records for the completed year.

BIRDS.—The following birds were placed in separate runs on the College Poultry Farm and, with the exception of the four English, were used for breeding purposes. Fertility and hatching averages were very high.

I. Nine Danish Brown Leghorn 1907 pullets, selected from one of the best breeding centres in Denmark. Two of the hens died as a result of being egg-bound, and their eggs are not calculated.

II. Fifteen Danish White Leghorn 1907 pullets, selected from two breeding centres in Denmark.

III. Twelve Danish White Leghorn 1906 hens, selected as above.

IV. Four American White Leghorn 1906 hens, imported from the famous Lakewood Poultry Farm, in the State of New Jersey.

V. Four English exhibition White Leghorn 1906 hens, purchased for this purpose from one of the best breeders in this country. They have heavier legs than the pure Leghorn, but are not of the extreme exhibition type.

It may be explained that the Danish pullets were not early-hatched birds.

HOUSING AND FEEDING.—Each lot of birds were accommodated in large, open-fronted scratching-shed houses, with spacious grass runs, in which the conditions were equally favourable. They were fed in the ordinary manner, namely, soft food in the morning and grain in litter in the afternoon, with roots additional, as thought to be necessary. Grit was available in hoppers all the time. No attempt was made to force laying by special feeding.

SIZE OF BIRDS.—Increased size of body is believed to lead to decrease of egg production, and therefore we find that the heaviest layers are generally small. The average weights of the birds on January 1, 1908, when the experiment commenced, was as follows:

Lot No.	Breed.	Average Weight. lb.	oz.
I.	Danish Brown Leghorn pullets	3	8
II.	Danish White Leghorn pullets	3	4½
III.	Danish White Leghorn hens	3	3
IV.	American White Leghorn hens	3	9
V.	English (exhibition) White Leghorn hens	5	0

Thus it will be seen that the English are more than 50 per cent. larger than the Danish and are nearly 40 per cent. heavier than the American.

EGG PRODUCTION.—As previously explained, with a breed like the Leghorn, results in egg production are the supreme test, both as to number and market ability, as it is of small value for table purposes.

TABLE I.—MONTHLY LAYING AND AVERAGES.

Month, &c.	Lot I. Danish Brown Leghorns.		Lot II. Danish White Leghorns.		Lot III. Danish White Leghorns.		Lot IV. American White Leghorns.		Lot V. English (Exhibition) White Leghorns	
When Hatched	1907		1907		1906		1906		1906	
No. of birds in each lot	7		15		12		4		4	
1908.	Total No.	Averages.	Total No.	Averages.	Total No.	Averages.	Total No.	Averages.	Total No.	Averages.
January	10	1·43	19	1·27	7	0·58	—	—	—	—
February	104	14·86	65	4·33	29	2·42	—	—	—	—
March	124	17·71	299	19·93	234	19·5	83	20·75	18	4·5
April	181	25·86	331	22·13	281	23·42	92	23·0	43	10·75
May	138	19·71	303	20·2	252	21·0	92	23·0	42	10·5
June	129	18·43	230	15·33	250	20·83	63	15·75	40	10·0
July	105	15.0	281	18·67	265	22·08	81	20·25	52	13·0
August	125	17·86	271	18·07	209	17·42	76	19·0	64	16·0
September	104	14·86	243	16·2	145	12·08	64	16·0	43	10·75
October	22	3·14	132	8·8	12	1·0	17	4·25	2	0·5
November	8	1·14	5	0·33	—	—	—	—	—	—
December	26	3·71	—	—	—	—	—	—	—	—
Totals	1076	153·71	2179	145·26	1684	140·33	568	142.0	304	76·0

Table. I. gives the monthly records for the five lots, which supports the general view that this breed is not a good winter layer, though the Browns come out well, laying 170 eggs, an average of 2.29, or nearly 16 per cent. during the months of January, February, October, November, and December. The white Danish pullets laid 221 eggs, an average of 14.74, or a little more than 10 per cent., in the same period. The hens compare unfavourably, though the Danish have proved best of the three lots. In all cases production from March to September was very steady, due to the fact that none of the birds became broody.

For actual comparisons it would be desirable to place Lots III., IV., and V. in the same category, as these were all hens, for the general experience is that pullets produce a higher average than older birds. It was not so to any great extent in this experiment. Probably the difference would have been greater had the brown and white pullets been earlier hatched. The averages of the Danish and American white hens were very good indeed.

TABLE II.—COMPARISONS.

Descriptions.	Lot I. Danish Brown Leghorns.	Lot II. Danish White Leghorns.	Lot III. Danish White Leghorns.	Lot IV. American White Leghorns.	Lot V. English (Exhibition) White Leghorns
When hatched.....	1907	1907	1906	1906	1906
No. of Birds in each Lot.....	7	15	12	4	4
Total No. of Eggs Laid	1,076	2,179	1,684	568	304
Average per Hen or Pullet.....	153·71	145·26	140·33	142	76
Average Weight of Eggs per Bird	20 lb. 6·4 oz.	19 lb. 9·19 oz.	18 lb. 12·58 oz.	20 lb. 11·9 oz.	9 lb. 11·75 oz.
Average Weight of Egg.....	2·123 oz.	2·15 oz.	2·14 oz.	2·34 oz.	2·05 oz.
Weight per 120 Eggs	15·94 lb.	16·06 lb.	16·05 lb.	17·55 lb.	15·44 lb.
Under 2 oz.	1·8 per cent.	2·06 per cent.	0·77 per cent.	0·52 per cent.	32·9 per cent.

SIZE OF EGGS.—As emphasised in the interim report, careful records were kept as to size of eggs produced. Table II. gives the comparisons. Whilst the average weight is equal to the 2 oz. standard, it will be seen that the Danish pullets come out remarkably, showing the results of continued selection in that direction, whereas the English (exhibition) hens produced nearly one-third the total number laid under the weight named. The average weight of eggs per bird shows that the Danish brown pullets yielded nearly six times their body weight in eggs during the twelve months, whereas the heavier English Whites did not produce twice their weight.

PROFIT.—No records of cost of feeding or of value of eggs (as they were largely used for hatching) were kept, but if 5s. per annum per hen is charged for food, and the eggs produced are valued at one penny each (a little high in the case of the hens), the following are the average results:

TABLE III.—COST AND PROFIT.

Lot.	Breed.	Age.	Value of Eggs.	Profit per Bird.
			s. d.	s. d
I.	Danish Brown Leghorns.....	1907	12 9	7 9
II.	Danish White Leghorns	1907	12 1	7 1
III.	Danish White Leghorns	1906	11 8	6 8
IV.	American White Leghorns.....	1906	11 10	6 10
V.	English (Exhibition) White Leghorns	1906	6 4	1 4

EDWARD BROWN, Lecturer in Aviculture.

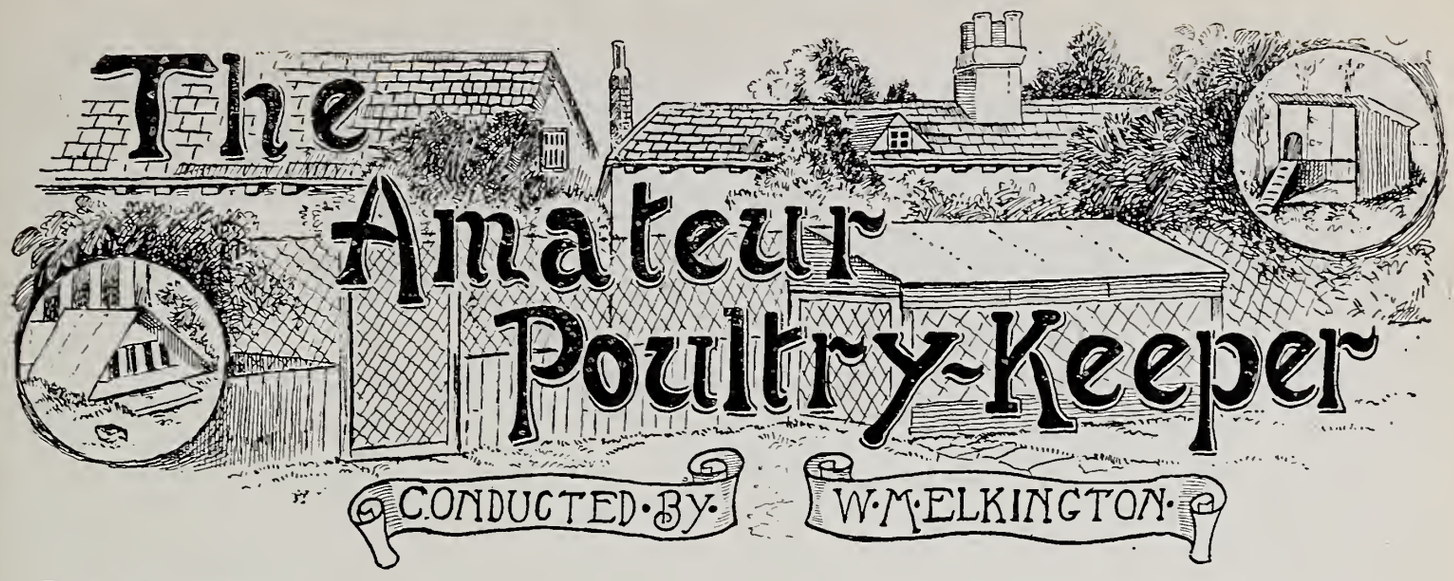
WILL BROWN, Practical Instructor in Aviculture.

University College, Reading.

February, 1909.

THE I.P.R. SERIES OF RECORD SHEETS.

BELIEVING that there is a real need for the publication of up-to-date charts for trap-nested egg-layers, for incubators, and for sitting hens, we have designed a series of charts for the purposes named, and we beg to draw readers' attention to our advertisement on page 396. A few words in explanation may be permitted to describe the complete record which may be kept by their use. On the laying chart spaces are allowed for giving details as to the month, year, number of pen, breed of birds, age of females, pedigree number of male, pedigree number of females, and for particulars as to when the pen was mated. Below, the chart is ruled off for twenty birds, giving a column for each day of the month, for the total eggs laid by each bird during that period, the number of eggs incubated, showing number fertile, number hatched and percentage hatched, number sold and number returned infertile, together with a column for number of eggs laid previously and for the total number of eggs to date. A special line is reserved for recording any eggs laid outside the trap-nests in which case the number of the hen may not be known. Instructions for keeping this chart are printed at the bottom. The incubator chart has been designed for use with the laying chart and provision is made for keeping the exact result of eggs laid by four pens. Columns are allowed for morning and afternoon attendance, showing date, time, temperature of incubator, temperature of room, and maximum and minimum temperature outside. The latter is a very useful record to keep, as by it the ventilation of the incubator room may be regulated. The charts for use with sitting hens are designed so that all necessary particulars may be kept accurately.



Prize Competition.

Special attention is directed to the £2 2s. prize competition for amateurs, full particulars of which are to be found on page 391.

The Need for Better Eggs.

Though the encouragement of prolific layers in our small poultry yards is very desirable, I think far more attention should be paid to the size and market qualities of eggs, for if we are to maintain the reputation of home produce and keep up the prices, in face of the keen competition from Denmark and other countries where they understand the value of quality and good packing, we must teach our small poultry keepers that it is better to produce two good eggs than three undersized ones. The report of the laying competition at Street throws some interesting light upon this matter. During January one pen laid no fewer than 140 eggs, twelve more than the next highest total; yet it only took fifth place in the list, for the positions were decided by the weight and value of the eggs, and the leading pen laid only 127 eggs! Of course, the laying of 140 small eggs was a far greater strain upon the birds than the laying of 127 large ones, and yet the returns were less. This is the most useful lesson to amateurs conveyed by the present competition, and the moral is that prolific layers of small eggs are not really profitable after all, because their eggs are so difficult to market. Amateurs should carefully cultivate the trait of laying large eggs in good numbers, for there is a big future before the hen that puts some size into her eggs.

Egg Shows.

A country clergyman told me some time ago how he was endeavouring to get cottagers and small poultry keepers to take greater pride in their eggs by organising egg shows, one taking place at Christmas and another at Easter. Useful prizes in cash and kind were offered for the best baskets of eggs (not less than two dozen), and the improvement that had since taken place in the local eggs had brought quite a little wave of prosperity to the village, for nearly every householder and cottager had become a poultry keeper and there was real rivalry to produce fine samples of eggs, whilst the grocers in the neighbouring town invariably paid higher prices for eggs from this village than any others and regarded them as the best obtainable. Cross-breds were the general favourites, and one man had a strain that laid some of the largest and richest-coloured eggs one could find in the country. What is more, the hens that laid these eggs were not mere freaks. My informant told me he thought there were more eggs laid in his parish during the winter than in any other dozen neighbouring parishes. An example of this kind, if followed in every village in the country, would be an admirable medium for popularising poultry-keeping and improving the quality and size of our eggs.

Chicken Ailments.

It is not unusual to hear amateurs lamenting the loss of a large proportion of their chickens, and one is often tempted to wonder whether mismanagement or some peculiar local conditions can be held to account for such wholesale mortality. I am inclined to believe that in most cases injudicious feeding is the real cause of the mischief, and, though by no means holding with the theory that hard corn should be used entirely for young chickens, I do believe that many chickens are lost through giving a lot of sloppy stuff. I knew one lady who complained that she never could rear her chickens, although she gave them nothing but bread soaked in either milk or cold tea! I never tried that diet on an extensive scale, but if I did I should expect to find looseness of the bowels and very probably caking about the vent. Many people do not know that their chickens are ailing until they find them becoming extremely weak and, on examination, discover a caked mass obstructing the vent. This should be moistened and the fluff cleaned or cut away, whilst the best thing to check the looseness is a little boiled rice, over which a pinch of powdered chalk may be dusted. It is an old and simple remedy, but it is one that amateurs can apply without any trouble. But bowel ailments are better and easier prevented than cured, and I recommend a good sample of mixed chicken corn as the staple diet for the first three weeks, with not more than two feeds daily of biscuit meal dried off with Sussex

ground oats. By the way, those who have plenty of land at their disposal will do well to remember that a fresh piece of ground for chicken rearing every year is the best safeguard against the outbreak of such diseases as gapes, and the surest means of promoting steady growth in the youngsters.

Coddling Chickens.

The coddling of chickens by keeping them in outhouses when the weather is dry, or by making their sleeping quarters too cosy, is a sure way of inviting trouble. During severe weather it is very nice to be able to keep the youngsters comfortable in a greenhouse or similar place, but personally I should prefer a sheltered spot out of doors behind a wall or building, or perhaps an open shed in very bad weather, because the chickens would in such a case become naturally hardy, whereas by rearing indoors one risks exposing them to chills while hardening them off out of doors in the changeable weather of the early spring. Moreover, those who use artificial brooders should make a point of gradually hardening the young birds off from the very first. A temperature of 90 degrees, though very well for a start, must not be maintained continually. A gradual reduction should be made, 80 degrees being sufficient at the end of a fortnight, and the operator should, after trimming the lamp at night, go round an hour later and see how the temperature is, for the flame of the lamp will have increased considerably. In the daytime the temperature should be reduced five degrees after the first two days, and the chickens should be encouraged to stay in the outer run as much as possible. The advantage of a broody hen for those who are compelled to go to business and leave their poultry during the day lies in the fact that she will turn her chickens out for a run occasionally, whilst in a rearer the young birds are often tempted to remain in the warmth when they would be better outside.

HOW TO MAKE A BACK-YARD RUN.

To the Editor of THE ILLUSTRATED POULTRY RECORD.

SIR,—In view of Mr. A. T. Johnson's able article in your January issue, "How to Make a Back-yard Run," the result of my experience in keeping poultry in such a run and under excessively adverse conditions may be of interest to amateur poultry-keepers, and should, I think, prove instructive should it happen to come to the notice of some prospective poultry-keepers, who, like myself, have but a limited space at their disposal.

Owing to the situation of my house and the garden space at my disposal, my poultry run faces north. It lies low, and is on clay soil. The run is entirely covered, and in the winter is never reached by the sun's rays or the winds from the south and west. In summer I am able to have a small portion of the roof removed in dry weather, which lets in a little sun for a short period of the day. In fact, the only point in favour of the run is that it is sheltered from the east winds.

I am aware that I keep what would be considered to be more hens than my space will allow, but I counteract this by periodically removing the entire contents of the run and replacing them by fresh earth, and by keeping a well-littered scratching-shed.

My pullets (which are miss-marked Buff Orpingtons from the poultry runs of a famous West of England Orpington fancier) averaged during the twelve months ending December 31, 1908, 127.75 eggs per hen, which were produced at an average cost per hen per week for food of 1.47d.

It will be seen that a considerable profit is shown on these figures, especially taking into account the high prices that can be obtained for eggs, practically speaking, at all times in the suburbs of London, and I think this result shows that it is not necessary (however desirable) to keep poultry under ideal conditions to ensure a profit. It is of interest, too, in showing that birds bred for Fancy can also lay well, even under unnatural conditions. At the present time I have in my run some White Leghorn pullets which have been sold to me as Pedigree Utility birds, and I hope the close of the present year will show me some interesting results in comparison with last year's working.—Yours, etc.,

R. S. S.

Wimbledon, February 5, 1909.

AN AMATEUR'S BALANCE-SHEET.

By J. E. THOMAS.

IT is a long time since my first attempt at poultry-keeping. I must have been about ten years of age when I worried my mother until she bought four hens and a rooster, and I was installed as head keeper. We kept them in the back yard and only had a run about 10 ft. square, but with good looking after they kept in very good health and they also laid well.

To the front of our houses were small gardens, and it was my duty first thing in the morning to take the poultry family out for a walk, with the idea of appropriating any worms that might have strayed out of the gardens on to the footpath, and also to provide the hens with exercise. I must have taken very kindly to them, for I never remember objecting to the walking-out business or to the daily cleaning out of the cote. I did, however, object to the boiling and cutting up of the potato peelings for their breakfast. I fancy I can smell them yet, and it was with great enjoyment I read an article some weeks back, giving it that this fashionable dish is unsuitable for hens. I had many an adventure with stray dogs during these morning rambles, and on one occasion we struck a house where there had been a wedding, and it was impossible to get my birds away until they had picked up every particle of rice which the obliging bystanders had thrown at the bridal train.

At present I live on the outskirts of the town and have an allotment containing about 180 square yards, part of which I use for a hen run. There is a well-lighted covered run, 7 ft. by 10 ft., and an outer run of 30 ft. by 10 ft.

The growing of your own eggs and vegetables together, I find, goes very well—the thinnings and waste from the allotment are consumed by the hens, and the droppings from the hens, together with the soil from the covered run, find manure for the allotment. The run is about three minutes from the house, and is not, perhaps, as convenient as keeping them in

your own garden, but personally I do not find it much trouble attending to their wants. I have rigged up (with the aid of an old alarum clock) a mechanical feeder, and it is only necessary for me to go to the allotment once a day. This I do in winter on my way to business, and in summer before breakfast.

I like variety in the hens I keep, so that, supposing I have six hens, I try to get six different breeds. Some of my speculations have been terrible mongrels. It is also very interesting to do a little speculating in eggs for sittings. If you buy a sitting of, say, White Leghorns, you know from the first that they will turn out to be some sort of a white bird; but if you purchase one shilling's worth of Irish eggs and sit them, they always keep you in a state of pleasurable uncertainty as to what they will turn out to be.

The last two years I have adopted the principle of rearing two broods of chickens—one of selected utility fowls from the Council Farm and one of Irish for a speculation (and the pot), keeping the best out of the two broods. There have been mixed results from the Irish eggs; two of the last sittings turned out to be first-class layers, one winning for two years in succession the first prize at a local show for best brown eggs.

For the first nine months of 1907 my seven hens averaged twenty-two eggs per week, and for October, November, and December nine per week; the average cost of the corn, etc., worked out at 10d. per week. During the year I sat two hens, but for some unaccountable reason did not hatch a single chicken. In 1908 I started the year with six hens, lost two in February, potted one in July, and another in September, leaving me two of the old hens. As regards chickens, I reared two broods, and out of these I am keeping six pullets. These pullets started laying the first week in January this year, so I am expecting a very good season. I had 428 eggs in 1908 from four hens (three only after June), and two out of these four hens reared a brood of chickens.

I should strongly advise anyone who has a little ground he can spare to keep a few fowls. There is, in my opinion, more pleasure to be got out of keeping them than from any other hobby; it is a fine thing to have a good supply of genuine new-laid eggs in the house.

1907.—Seven Hens and One Cock (Cock not kept after April).

			£	s.	d.		£	s.	d.
Jan.	28 eggs.	Jan., Feb.,							
Feb.	31	Mch., Apl.,				Total cost of all foods for the 12 months....	1	19	8
Mch.	89	Sept., Oct.,	446 eggs at 1½d. ..	2	15	9			
Apl.	103	Nov., Dec.							
May	104					Spent nothing on the runs.			
June	137	May, June,							
July	120	July, Aug.	484 eggs at 1d.	2	0	4			
Aug.	123								
Sept.	80	1 Buff rooster (pot)		0	3	0			
Oct.	56	1 hen „		0	1	6			
Nov.	32								
Dec.	27					Profit on the year.....	3	0	11
	930	Total		5	0	7	5	0	7

1908.—Commenced the year with Six Hens. Lost Two in February, Potted One in July and another in September. Two Broods of Chickens Reared (Thirteen in all).

			£	s.	d.		£	s.	d.
Jan.	22	Jan., Feb., March,	164 eggs at			Total cost of food &c. ..	2	10	10
Feb.	37	Sept., Oct., Nov., Dec.	1½d.	1	0	6			
Mch.	56					String netting	0	2	6
Apl.	73	April, May, June,				Sittings	0	4	2
May	68	July	264 at 1d.	1	2	0			
June	57								
July	53	5 birds for table at 1s. 6d.		0	7	6			
Aug.	13	3 „ „ 1s. 9d.		0	5	3			
Sept.	28								
Oct.	17	Reared 3 Houdan pullets, 3s. 6d. ..		0	10	6			
Nov.	4	„ 3 Houdan Ancona pullets							
Dec.	0	3s. 6d.....		0	10	6			
		„ 2 Houdan Ancona cocks, 2s.		0	4	0	Profit	1	2	9
	428			£4	0	3		£4	0	3

NOTE.—During 1908 I purchased all grain, &c., from a local stores, whose prices are 25 per cent. above corn factors' prices. The cost of the materials used in the house and run is about 22s.

THE AMATEUR IN THE BREEDING SEASON.

By W. M. ELKINGTON.

AS compared with the professional or skilled poultry keeper, it may be said that as a general rule the amateur loses ground in commencing, and again in the manner in which he conducts his breeding and rearing operations. The first is very often due to inability to devote sufficient time to the stock at a critical period, for if one would have early fertile eggs and early chickens there is much to be done in the way of preparation before the actual breeding season commences. In some cases that have come to my notice late breeding has become chronic. By commencing with late-hatched pullets, chickens are not obtained until well on into the spring, and the pullets amongst them are not ready to lay in their turn until the end of next winter; and so it goes on year after year, and the poor amateur never seems able to catch up the time lost at the start. The moral is obvious. If you are making a start with poultry, be sure to obtain some young, but early-hatched and well-developed, stock to breed from. If you have already commenced and have neglected this very important precaution, and find yourself late every season, do not waste any more time lagging in the rear, but make a fresh start in a more satisfactory manner. It is difficult to persuade an amateur who has in his inexperience made a bad beginning with undeveloped or degenerate stock that the very best thing he can do is to cut the loss and start again. Usually he has an idea that he can put matters right in a year or two or that they will right themselves in course of time. And so he will go struggling along, only commencing to breed when other people are nearly finished, always short of eggs, especially in winter, and scarcely knowing what it is to see young stock thrive and develop as they should. This is not a fanciful picture, but what is actually happening to scores of amateurs who have bought badly at the commencement. He is a wise man who lays a solid foundation to his operations by purchasing stock from a genuine breeder with a reputation for his fancy or utility strains, as the case may be; and he is a lucky man who buys by chance and happens to get something good. But in this case it is easier and cheaper in the long run to be wise than lucky.

To the average amateur quality is of more importance than quantity. That is to say, it is better that he should breed a few chickens from good stock, and do them well, than encumber himself with a lot of young birds of no particular merit. In a great many cases people who keep a limited number of hens, up to thirty or forty, will run two or three cocks with them, and set the eggs as they come. I have even known an amateur fancier who had only three good hens in his breeding-pen to bring in three more inferior birds, and set eggs from one and all just as they came. Anyone would know that this man was doing wrong, but it is not so generally understood that the selection of breeding stock is just as important when utilitarian properties are the object. In a large flock there are good, bad, and indifferent layers, and it is only by selecting the former and leaving out the other two grades that we can raise the standard of the useful and reduce the drones to the minimum. Even if the best birds are not laying just now, do not fall back upon the others in order to save time. Both in fancy and utility poultry-breeding it is merely wasting opportunities to breed from any birds that are not up to a certain standard.

March is by many people regarded as the best month for hatching, and for utility stock of the medium heavy breeds, such as Wyandottes, it certainly is, for as a general rule the pullets are early enough to start laying before the autumnal changes of weather and late enough to miss the summer moult that spoils the profit of so many earlier-hatched birds. Therefore, set as many eggs of the medium heavy breeds as you require within the next week or two, and when you have set sufficient to produce as many chickens as you require and can manage properly, stop short.

And that brings us to the sale of eggs for sitting. Many amateurs complain that they cannot find a ready sale for their eggs, and that is generally because they ask too much money. They must not expect to realise the same prices as the professionals and the successful breeders who, in many cases, have spent half their lives in bringing their strains up to a certain standard of excellence, and who have devoted hundreds of pounds to developing their businesses. The amateur's eggs may produce just as good chickens as those of the professional. Sometimes they do, and sometimes they do not. At any-rate, the big firms are entitled to charge for their reputation, for their strain, for the time and money they have put into their work, and for the superior stock they possess, though the same stock may not actually be in the breeding-pens they sell eggs from. To compete with rivals of this class, the amateur can do no more than keep his prices low. When his eggs are priced at the same rate as those of the professional, the public will invariably prefer to take their chance of getting something good from the latter; but when the amateur charges one-third less he may do a fair amount of business, and if he reduces his prices by one half, and describes the merits of what he has to sell, he can hardly fail to secure a good share of patronage.

As for buying eggs from other people, now is the time to invest a little money. Most amateurs like to have one or two sittings every year in the hope of something good turning up, and in the fancy side of the business there is plenty of fun to be had, and not a little disappointment. The amateur who cares only for utilitarian properties can procure eggs from some of the best strains for a moderate outlay, and he is less likely to meet with disappointment than the would-be fancier who imagines the purchase of a guinea sitting the sure road to a win at the Dairy or the building up of a famous winning strain. In buying eggs from fancy strains the safest plan is to know the party you are purchasing from. If you happen to be acquainted with a fancier who, to your knowledge, is selling eggs from a pen of good birds that he himself is actually breeding from, those eggs should be worth buying, and even though he be a comparatively small fancier it is better to go to him than to an unknown person who may not sell eggs from his best birds. And the worst of egg buying is that it is so difficult to tell who does sell eggs from his best pens. Among the best breeds for amateur egg buyers to invest in are White and Partridge Wyandottes, Buff, Black and White Orpingtons, Black, White and Brown Leghorns, Minorcas and Barred Rocks. Black Wyandottes are still a big gamble, and Blue Wyandottes and Blue Leghorns are altogether in the clouds for the present.



POST-MORTEM EXAMINATIONS.

We have made arrangements by which post-mortem examinations of poultry and game can be effected for our readers upon the following conditions:

1. *The specimen is to be forwarded postage or carriage paid and securely packed to "Biologist," 297, Trinity Road, Wandsworth Common, London, S.W.*
2. *The fee of 2s. 6d. (stamps will not be accepted) must be remitted with each specimen and a letter giving particulars of feeding and housing, or any symptoms which were observed before death.*
3. *Birds should on no account be addressed to the office of the paper. If forwarded there they will be returned to the sender.*

It is recommended that specimens be despatched by parcels post, where practicable, and as soon after death as possible. A reply will be received by letter, defining the disease, its cause, treatment, and prevention.

Poultry Jurisprudence.

There was an amusing interlude during the progress of an action in Mr. Justice Darling's court a few weeks ago. Seeing that the proceedings were likely to be protracted, his lordship, with the intention of releasing jurymen waiting for other cases, asked: "Are there any jurymen who have very important duties to-day?" Several replied that they had, and one stated: "I have sickness in the house. I am an artist; I have many things to do." Is a relative ill?" asked the judge, with kindly consideration. "No sir, it's an animal; it's a bird." "Have you to nurse it?" "I am the only one in the house capable of attending to it. It is a prize hen." "Then I cannot excuse you, sir," replied the judge. This incident suggests quite a crowd of speculations. One cannot help wondering from what critical disease that hen was suffering and whether, after all, she pulled through without her owner's devoted ministrations. Also—and the problem commends itself to readers with a mathematical bias—how many working days did the juryman lose by the death (if indeed she died) of that prize hen? For have we not read somewhere of the "hundred and one pound" hen, or was it a cock?

Mortality Among the Coops.

Those who do not rear with foster-mothers or brooders, but adhere to the old-fashioned and, in many ways, excellent method of placing out the chicks with their mothers under coops on grass, will do well to remember that the greatest causes of mortality among them will arise from pneumonia and pleurisy. More especially is this noticeable in February and March, the earlier months for rearing operations. These diseases are induced in two ways. One is because the coops are not sufficiently ventilated, and the other because there is an anxiety to open them too soon, while the morning is still raw and cold. These two influences working together do the damage, for it is easy to understand that chicks, after having spent the night in a badly ventilated, hot coop, are ill-adapted to sudden exposure to an outside temperature twenty degrees lower than that they emerge from. To avoid these risks the coops must be well ventilated with plenty of holes near the top, and if the chicks are well fed late in the evening, there is no need to release them until after sunrise. The early chick may catch the early worm, but it often catches the early chill also.

Kidney Disease in Fowls.

That poultry suffer from diseased kidneys is a fact that is generally accepted, but it is not realised that the cause is to be more often attributed to over-indulgence in nitrogenous food, especially peas and beans, than to chill and exposure. A pullet recently forwarded for post-mortem examination from one of our readers was an instance of the chronic form of the disease. The kidneys were both much enlarged, white and very soft and brittle, and the owner had lost another with similar undefined symptoms—namely, loss of appetite, general dulness, and anæmia. A note accompanying the specimen described the diet as chosen from biscuit meal, ground oats, bean meal, Canadian peas, oats, wheat, barleymeal, sharps, and occasionally maize. The fist five of these foodstuffs would on analysis show a high percentage of albuminoids the elimination of which by the kidneys would be a matter of difficulty, ending in their becoming diseased. There is no doubt that the diet was improperly balanced, and a return to a lower albuminoid ratio would be the remedy.

Sarcoma.

A tumour of a malignant or cancerous nature commonly met with among the inmates of the poultry yard, as also among pheasants, grouse, and many other birds, is that to which has been given the name of Sarcoma, signifying a piece of flesh, for a distinctive characteristic of the growth is its firm "fleshy" consistence. In appearance, both to the naked eye and under the microscope, this variety of tumour, as it occurs in fowls, is identical with corresponding growths observed in man and other animals,

and the likeness appears further in the rapidity of its growth, liability to recur after removal, and tendency to crop up as secondary tumours in internal parts. There seems to be some evidence also to suggest that Sarcoma appears in successive generations of a strain or family. The tumour may occur in nearly any part of the fowl's body, but most commonly in the muscles, especially those of thigh and breast, in the skin, brain, eye, liver, spleen, oviduct, and other internal parts. We have been impressed by the frequency with which the spleen suffers sometimes as the starting-point, although more often as the site of a secondary tumour following on a previous one in a less vital part. The photograph shows

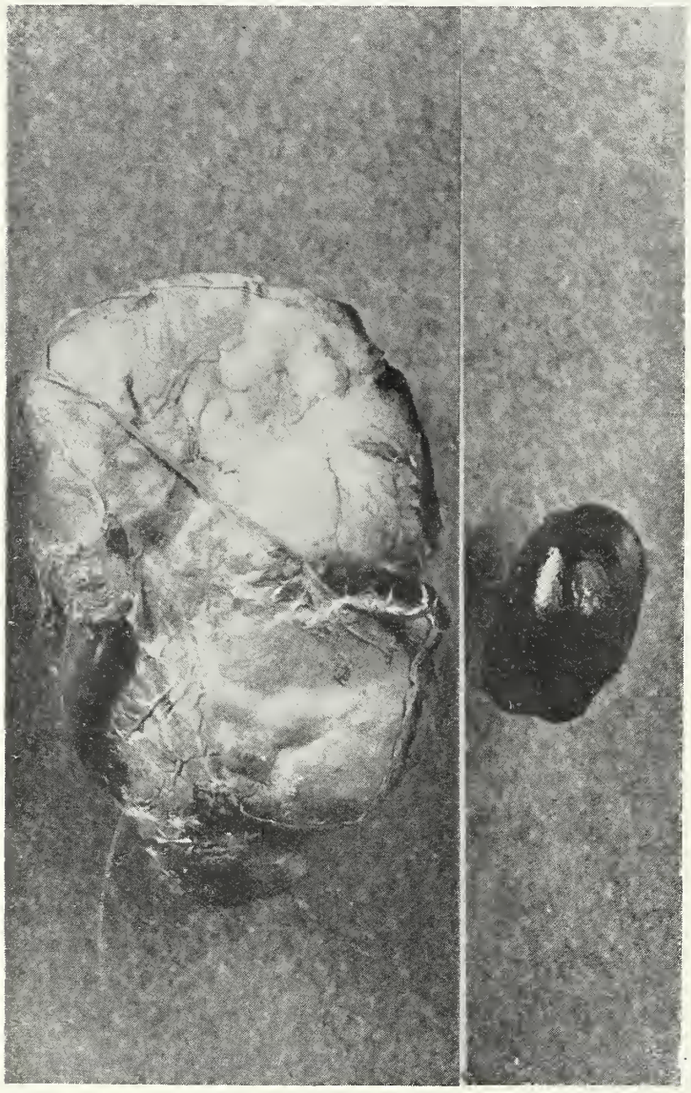


Fig. 1. Fig. 2.

Actual size of (1) Sarcoma of Spleen of a Plymouth Rock Cockerel; (2) Normal healthy Spleen of a Fowl.

an enormous sarcoma of the spleen, taken from a Plymouth Rock cockerel, in which the growth measured three and a half inches long and seven in circumference. Some idea of its size will be formed on comparing it with a healthy spleen—they are seen in the photograph side by side—which in the normal state is only as large as a filbert. The functions of the spleen as a blood-forming organ are so important that it is remarkable that this cockerel did not suffer any apparent inconvenience, but was found dead in the run one morning, death having occurred from bursting of the tumour and consequent internal bleeding. In two other instances of Sarcoma in fowls that have recently come under our notice death occurred in a precisely similar manner, but in neither had the growth attained to such exceptional size as in that figured above. When found growing in the eyeball and liver, the tumour is frequently black from the presence of pigment. It is then termed a melanotic sarcoma. It is scarcely necessary to say that sarcomata in poultry are to be classed as incurable disease. Even when recognised as small and apparently harmless nodules in the muscles of the thigh and breast, they are hopeless to treat, and speedy despatch of the sufferer is at once the most economical as well as merciful course.

DIPHTHERITIS IN POULTRY.

By LOUIS W. SAMBON, M.D., F.Z.S.

(*Concluded from page 326.*)

THE incubation period of avian diphtheritis is usually placed at from four to twenty days. I believe it to be much shorter. In pigeons it certainly lasts only two or three days. Death may result from suffocation or extensive systemic poisoning. Convulsive movements are not infrequent in the death struggle.

The true cause of avian diphtheria is still uncertain. We know beyond doubt that the disease is not due to cold winds or damp feet, as was at one time believed, and we are satisfied that a specific microbe must be the deadly agent, either alone or in association with other harmful micro-organisms. But so many "specific" organisms have been described in this distemper that we are doubtful of the lot. Even in human diphtheria, notwithstanding that the microbe discovered by Klebs in 1875 is now universally recognised as its true causative agent, there are many obscure points which require elucidation. Thus we do not know why the presence of the specific organism in certain cases does not give rise to any morbid manifestation whatever, or causes only a simple sore throat, and why it is altogether absent in other cases in which all the characteristic symptoms of the disease are unmistakably present. Löffler, the well-known German bacteriologist, who is universally recognised as having demonstrated the relationship of cause and effect between Klebs's bacillus and human diphtheria, discovered, in 1884, a very similar microbe in the false membranes of diphtheritic pigeons, but he looked upon the avian parasite as distinct from that of man, and proposed to call it *Bacillus diphtheriæ columbarum*. Cultures of this organism inoculated into healthy pigeons reproduced the disease with abundant false membranes, they gave rise to milder lesions in fowls, killed sparrows in about three days, produced ulcerations in guinea-pigs, necrosis in rats, and only a slight redness in dogs. The very same year Emmerich, and subsequently other investigators, were said to have found in pigeon diphtheritis a microbe identical with that of human diphtheria, and Wheler, in the "American Practitioner" for 1887, stated that he had observed diphtheria in families that had eaten diphtheritic pigeons.

In fowls, ducks, geese, guinea-fowls, turkeys, peacocks, pheasants, partridges, grouse, and other birds, the disease in every way resembles that of pigeons, but bacteriologists seem inclined to dis-

tinguish, not only in the different orders and families of birds, but in each single host species, various types corresponding to different kinds of bacteria. Without entering into an unprofitable discussion of the many different organisms described, I will point out that several investigators have described organisms indistinguishable from the one which is looked upon as the cause of diphtheria in man. In 1895 De Very declared that he had found Klebs's diphtheria bacillus in two cocks suffering from avian diphtheritis, and he regarded the bacillus as the cause of the disease. In 1898, Stevenson, apparently on the result of experiments on diseased fowls with diphtheria antitoxin, stated that fowl diphtheritis or "roup" is caused by the diphtheria bacillus, and is identical with the human diphtheria. In 1900, Gordon Sharp also found Klebs's bacillus in fowls suffering from "roup." In 1901, Guerin, as the result of experiments and observations in many epidemics of fowl diphtheritis, concluded that human diphtheria differs from that of fowls, which he ascribes to a pasteurella, but adds that twice he isolated from the false membranes of diseased fowls an organism morphologically identical with Klebs's bacillus. This organism was non-virulent. He therefore suggested that it had no relation with diphtheria, but might be the same as the pseudo-diphtheria bacillus so frequently found in the throat of healthy human beings. In 1894, Loir and Ducloux had the opportunity of investigating in Tunisia a diphtheritic epizootic which raged amongst fowls, turkeys, ducks, pigeons and sparrows. As frequent cases of sore throat occurred amongst the persons employed on the affected poultry farms, the authors made some bacteriological examinations, and in a child suffering from a severe form of diphtheritis they succeeded in isolating the same organism as they had found in the birds. The inoculation of cultures of this bacillus from man reproduced the disease in normal fowls.

Numerous medical men have reported cases of direct transmission of diphtheritis from fowls to man. The most interesting case is perhaps the one reported by Gerhardt at the Wiesbaden Medical Congress in 1883: A large number of fowls were imported from Verona in Italy to the village of Nesselhausen in Baden; some were suffering from diphtheritis when they arrived, and about half of them died; all the chickens bred in incubators died, four cats kept in the place died from diphtheria, and four of the six men employed on this poultry farm had diphtheria. One man who was pecked by one of the diseased birds on the hand and foot subsequently showed false membranes on these parts. No case occurred in the neighbouring village.

In the *Journal de Sanlé* of December 23, 1888, is an account by Dr. Bild of the first occurrence of diphtheria, which, after thirty years of practice, he had seen in the principal town of the small Greek island of Skiatos. It is stated that in June, 1884, Dr. Paulinis was called to see several children who were simultaneously affected with diphtheria, and of whom five died. The epidemic invaded the whole town, and in five months 125 persons had been attacked and thirty-six had died. The cause of this sudden invasion being investigated, it was ascertained that in the locality where the epidemic commenced was a courtyard occupied by turkeys recently brought by boat from Salonica. These turkeys had exhibited false membranes in the fauces, and all had died except one, and in this instance the bird is reported to have been still suffering from paralysis of its feet, which incapacitated it from walking.

In 1892, Debrie reported in the *Archives de Médecine et Pharmacologie Militaires* that soldiers suffering from diphtheria were taken to the Sebdou Hospital. Soon after their arrival certain fowls fed by one of the hospital attendants developed diphtheritis; later the owner of these birds and a soldier who looked after them were also attacked.

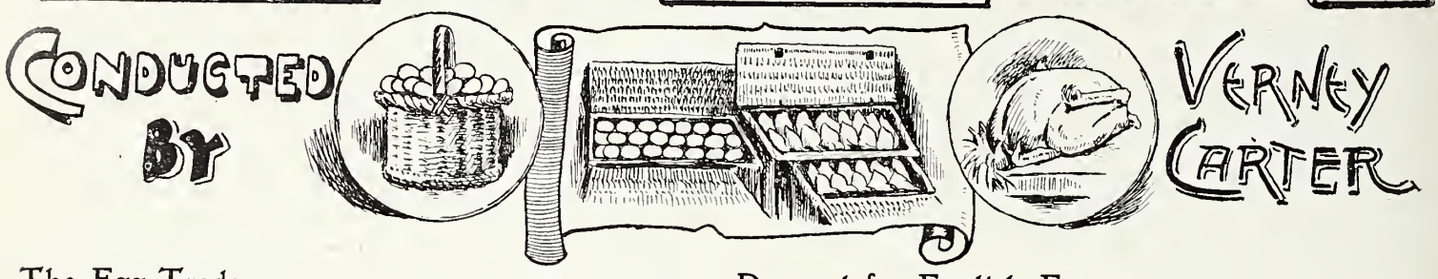
In the diphtheria epidemic of Frankfort in 1886, the authorities became so fully convinced that the epidemic was related to a concurrent avian epizootic, that they issued a warning to the public, stating that the disease might be contracted either by direct contact with the diseased birds or by means of milk from cows kept in the proximity of infected poultry.

The simultaneous occurrence of diphtheria epidemics in man and of epizootics of a similar nature in the most diverse animals has been observed again and again in all ages and places. Their relationship is unhesitatingly admitted in the accounts of the great epidemics which desolated Europe between the sixteenth and eighteenth centuries. The deadly epidemic of Naples in 1618, and that of Paris in 1743, are reported to have followed on epizootics of the same nature, and Noah Webster in 1800 mentions the occurrence of fatal angina in man synchronously with a "pestilence amongst cats which swept away these animals by thousands."

Dr. G. Turner, in an important report to the Local Government Board, mentions an epidemic of diphtheria that occurred in the village of Braughing in 1883. The first cases were connected with a farm on which the fowls were dying from diphtheritis. Subsequently the disease made its appearance on other farms, where it was also preceded by a similar affection amongst fowls. During the summer of 1886, while investigating epidemic diphtheria at Farnham, he found that there had been simultaneously an epizootic amongst fowls. A similar epizootic had occurred also amongst fowls and turkeys at Ash, amongst fowls at Long Eaton, and amongst fowls and pheasants at Tongham. At Tongham a man bought a chicken from an infected farm, and took it home; diphtheria broke out in his house shortly afterwards. This was the first case in the village. Similar disease was noticed amongst the cats at Aldershot, Farnham, Yateley, and Petersfield. At Braughing both swine and horses suffered from sore-throat sickness immediately after the epidemic amongst human beings.

In the face of these facts it is surprising to find veterinary authorities, such as Friedberger and Fröhner, dismissing the whole evidence as "a mere assumption due to utter ignorance of veterinary pathology." To me it seems that the synchronous occurrence of diphtheritic disease in man and in some of the lower animals observed in almost every outbreak must certainly indicate more than a fortuitous coincidence. Besides, considering that human diphtheria is easily transmitted by inoculation to many kinds of animals, it seems only reasonable to surmise that it may be conveyed reciprocally from the lower animals to man. Unless we admit this we must believe in the spontaneous origin of diphtheria to explain its sudden appearance with no history of previous infection or recent importation. This is an inadmissible theory.

The Markets & Marketing



The Egg Trade.

During the last few days of January and the first half of February the shortage in the supplies of the cheaper foreign eggs, referred to in the last issue, was very acutely felt, and prices for this class of goods went up almost to famine proportions. Never, perhaps, since the spring of 1871 have the cheaper foreign eggs been dearer than they were at the beginning of February. Austro-Hungarian eggs realised as much as 15s. per 120—three-halfpence each, wholesale—Moroccans fetching 13s., whereas the normal price of these would be about 8s. at the outside.

The most curious feature of the situation was the fact that what are ordinarily the cheapest foreign eggs were the dearest eggs on the market. Take, for example, the highest grade of Danish eggs, which weigh 18 lb. per 120. These were realising from 16s. to 17s. per 120, 16 lb. eggs about 1s. less. Compare these weights and values with those of the Austrian and Hungarian eggs, the top grades of which would not exceed 15 lb. per 120; these latter were at 15s., therefore realising a higher value per lb. than were the Danish, which are superior in every sense of the word. The Italian eggs also went up very much in value, the top grades realising 17s. Of course, as everyone realised, this unnatural state of things could not last for long, and neither did it, for on February 8 the market prices suddenly dropped 5s. per 120 for first-grade Italians, and 3s. 6d. to 4s. for Hungarian, Moroccan eggs bringing the latter nearer to their normal value.

The shortage in Hungarian eggs was, according to many traders, owing to the very cold weather, which not only retarded production, but also froze in transit most of the eggs which were produced.

The imports of foreign eggs for the month of January are the lowest that have been recorded for many years, and show a falling off in value amounting to no less a sum than £233,114 as compared with the corresponding period of 1908, representing a shortage of seventy-nine and a half millions of eggs during the month. A certain proportion of this shortage can be ascribed to the fact that foreign countries marketed their preserved eggs earlier last year than usual, sending over the greater bulk of them before Christmas. The shortage during January of this year from Russia alone was 233,036 gt. hds. and upwards of 72,000 gt. hds. less from Denmark, Germany sending 155,654 gt. hds. less. After October till March all the eggs we receive from Russia are cold-stored or preserved. At the time of writing no more fresh Russian eggs are expected till the beginning of March, by which time a few Southern Russian eggs may begin to arrive.

Demand for English Eggs.

It is interesting to learn from the February issue of the Journal of the Board of Agriculture that the Board have received a request from a firm of wholesale provision merchants to be supplied with particulars of the best centres for purchasing and packing large quantities of English and Welsh eggs. This firm state that they are importers of the best grades of Irish and Continental eggs, but find that English new-laid eggs are in demand, and suggest that English producers would be benefited by coming into contact with the regular channels through which the great bulk of the eggs arriving in this country are being supplied to the public. The name of the firm in question can be ascertained on application.

Cold Storage.

A most interesting paper, entitled "Some Scientific Problems in the Preservation of Food by Artificial Refrigeration," was read by C. J. Tabor, Esq., F.R.A.I., at the Royal Society of Arts, on February 9. Among the problems touched upon was "What changes take place in the tissues of the article refrigerated and what is the effect of such changes on its nutritive value as food?" In dealing with this point Mr. Tabor referred to Miss Pennington's paper on "Changes Taking Place in Chickens in Cold Storage," an abridged report of which appeared in the February issue of this journal, and said that the result of the researches of this able lady would warrant one saying there is no loss of nutrient value in short storage, and a serious one if the goods be kept for a long time.

Another very important question to which he drew attention was "The beginning and growth of moulds." In dealing with this subject, he said that at the commencement of the frozen rabbit trade we were constantly finding mould on the consignments we received, and all concerned in the trade were at their wits' end to prevent it. Underwriters were losing so much money that in self-preservation they were compelled to raise the premiums to nearly war rates. Acting, as Mr. Tabor did at the time, as expert to Lloyds surveyors, he saw a great many cases of mould, and he carried out a number of experiments. Except in a few isolated instances these moulds are non-toxic and non-pathogenic.

It is reassuring to find that the Meat Trade Association have successfully memorialised the Government, and that Dr. Buchanan is now arranging to make a complete investigation on the subject of toxic and non-pathogenic moulds.

TABLE OF PRICES REALISED FOR HOME, COLONIAL, AND FOREIGN POULTRY, GAME, AND EGGS DURING FEBRUARY.

ENGLISH POULTRY—LONDON MARKETS.

Description	1st Week. Each.	2nd Week. Each.	3rd Week. Each.	4th Week. Each.
Surrey Chickens	3/0 to 5/0	3/0 to 5/0	3/0 to 5/0	3/6 to 5/6
Sussex ,,	3/0 ,, 5/0	3/0 ,, 5/0	3/0 ,, 5/0	3/6 ,, 5/6
Yorkshire ,,	2/3 ,, 4/6	2/6 ,, 4/6	2/6 ,, 4/6	2/9 ,, 4/6
Boston ,,	2/3 ,, 4/6	2/6 ,, 4/6	2/6 ,, 4/6	2/9 ,, 4/6
Essex ,,	2/3 ,, 4/6	2/6 ,, 4/6	2/6 ,, 4/6	2/9 ,, 4/6
Capons	—	—	—	—
Irish Chickens	2/3 ,, 3/0	2/3 ,, 3/3	2/3 ,, 3/6	2/6 ,, 3/6
Live Hens	2/0 ,, 2/9	1/9 ,, 2/9	2/0 ,, 2/9	2/0 ,, 2/9
Aylesbury Ducklings	—	—	—	—
Ducks	3/0 ,, 4/0	3/6 ,, 4/6	3/6 ,, 4/6	3/6 ,, 4/6
Geese	5/0 ,, 7/6	5/6 ,, 7/6	6/0 ,, 8/6	6/0 ,, 8/6
Turkeys, Eng., per lb.	—	—	—	—
,, Irish		—		—

ENGLISH GAME—LONDON MARKETS.

Description.	Each.	Each.	Each.	Each.
Grouse	—	—	—	—
Partridges	—	—	—	—
Pheasants	—	—	—	—
Black Game	—	—	—	—
Hares	2/0 to 3/3	2/3 to 3/3	2/3 to 3/6	2/6 to 3/6
Rabbits, Tame	0/10 ,, 2/0	0/10 ,, 2/0	1/0 ,, 2/0	1/0 ,, 2/0
,, Wild	0/9 ,, 1/1	0/9 ,, 1/1	0/9 ,, 1/2	0/9 ,, 1/2
Pigeons, Tame	—	—	—	—
,, Wild	—	—	—	—
Wild Duck	2/0 ,, 2/6	2/0 ,, 2/6	2/3 ,, 2/9	2/3 ,, 2/9
Woodcock	—	—	—	—
Snipe	1/0 ,, 1/9	—	—	—
Plover	0/5 ,, 0/6	0/5 ,, 0/7	0/6 ,, 0/7	0/6 ,, 0/7

ENGLISH EGGS.

Markets.	Per 120.	Per 120.	Per 120.	Per 120.
LONDON	15/0 to 15/6	14/0 to 15/0	13/4 to 14/6	13/0 to 13/6
Provinces.	Eggs per 1/-	Eggs per 1/-	Eggs per 1/-	Eggs per 1/-
MANCHESTER	6 to 7	7 to 8	9 to 10	9 to 10
BRISTOL	1/6 per doz	1/6 per doz	1/2 per doz	1/2 per doz

FOREIGN POULTRY—LONDON MARKETS.

Countries of Origin.	Prices Realised during the Month. Chickens. Each.	Ducks. Each.	Ducklings. Each.	Geese. per lb.	Turkeys. per lb.
Russia	1/6 to 2/9	2/3 to 2/9	—	0/5 to 0/5½	—
Belgium	2/9 ,, 4/6	—	—	—	—
France	—	—	—	—	0/8½ to 0/11
U S. of America ..... per lb.	—	—	—	—	—
Austria	1/6 ,, 1/9	—	—	—	
Canada	—	—	—	—	—
Australia	—	—	—	—	—

FOREIGN GAME. LONDON MARKETS.

	Price Each During Month.
Capercailzie	2/3 to 2/6
Black Game	1/6 ,, 1/9
Ptarmigan	1/0 ,, 1/3
Partridges	1/6 ,, 1/9
Quail	0/10 ,, 1/6
Bordeaux Pigeons	1/0 ,, 1/9
Hares	2/0 ,, 2/3
Rabbits	0/6½ ,, 0/8½
Snipe	1/0 ,, 1/3

IMPORTS OF POULTRY AND GAME. MONTH ENDING FEB. 28, '09.

Countries of Origin.	Declared Values. Game.	Poultry.
Russia	£2,539	£70,390
France	24	10,189
Austria Hungary	956	20,608
United States of America	—	16,415
Other Countries	3,339	14,499
Totals	£6,858	£132101

IRISH EGGS.

Description.	1st Week. Per 120.	2nd Week. Per 120.	3rd Week. Per 120.	4th Week. Per 120.
Irish Eggs	13/0 to 13/6	14/0 to 15/0	13/0 to 14/0	10/4 to 10/6

FOREIGN EGGS.

Description.	1st Week. Per 120.	2nd Week. Per 120.	3rd Week. Per 120.	4th Week. Per 120.
French	14/0 15/0	15/0 16/0	12/0 13/6	12/0 14/6
Danish	15/0 15/6	15/6 17/0	15/0 14/0	12/0 14/0
Italian	14/0 to 15/0	15/0 17/0	12/0 11/0	12/0 11/0
Austrian	11/0 ,, 12/6	13/0 15/0	11/0 9/6	10/6 9/0
Russian	9/6 10/6	—	—	—
Australian	—	—	—	—
Canadian	—	—	—	—

IMPORTS OF EGGS. MONTH ENDING FEB. 28, '09.

Countries of Origin.	Quantities in Gt. Hund.	Declared Values. £
Russia	90,582	42,546
Denmark	200,946	115,898
Germany	57,598	26,121
France	31,214	16,017
Italy	47,532	25,602
Austria Hungary	191,340	86,061
Canada	—	—
Other Countries	314,179	135,132
Totals	933,391	£447,377



The Belmore (N.S.W. Poultry Farm.

The evolution of the poultry industry in our Colonies is following the same order as in older countries, with, perhaps, more rapid progression, but modified in accordance with local conditions. The *Agricultural Gazette of New South Wales* gives an interesting article, entitled "A Permanent Poultry Farm," by Mr. G. Bradshaw, dealing with the plant at Belmore, owned by Mr. D. F. Staples. This only consists of ten acres, but has been conducted for about fourteen years, and upon its proceeds the owner has raised a large family. Chickens, ducks, and eggs form the chief products, and sales are made in the suburbs of Sydney. The land appears to be moderate in quality, cove ed with considerable growth of eucalyptus and scrub, and open-fronted houses are largely employed. Mr. Staples is one of the directors of the Poultry Farmers' Co-operative Society, which may explain part of his success.

New Zealand Aspirations.

Evidently local consumption grows apace wherever poultry production is advancing. In the *New Zealand Poultry Journal* we find it stated :

> At present we have no need to worry about it (an export trade). Local prices for eggs and poultry are higher than we can get from export. The supply is insufficient, as the prices for eggs and poultry this season will reach high water mark. When the industry flourishes, and we can produce more than our own requirements, then we may have a share of the £7,000,000 annually spent by England in importing eggs and poultry. It would make a valuable export trade to produce £2,000,000 annually for the London trade, and our products, that is, dressed poultry, sell well in the English market.

Ontario, Canada.

The report of Crops and Live Stock for the Province of Ontario for 1908, issued by the Bureau of Industries, says :

> Farmers are paying more attention to the raising of domestic fowl. Eggs have commanded high prices all this season, and more attention is being given to the selection and care of good layers. Farmers at present are relying more upon the eggs than upon the meat for profit in poultry raising. Some reports are to the effect that chickens are likely to be scarcer than usual owing to the great demand for eggs. Turkeys have not done so well as ordinary barnyard fowl this season, except in the St. Lawrence and Ottawa counties, where it is claimed that they will be profitable. One correspondent points out that poultry are a great aid in diminishing the number of insect pests on a farm.

A very interesting feature of this bulletin consists of the reports from corre pondents in various districts, the majority of which are very favourable indeed. We note in the annual report issued by the Bureau that there were in 1908 poultry of all classes 9,084,273, of the estimated value of $2,578,136.

Natal's Progress.

The Agricultural Statistics of Natal show that on August 31, 1907, there were in possession of Europeans in that Colony 257,703 fowls ; 21,147 ducks and geese ; turkeys, 7,347 ; and guinea fowls, 16,267, an increase of about 30,000, chiefly in fowls, over the previous year. The number of poultry sold during the year was 53,720, which is largely in excess of 1906. The eggs sold by Europeans were 6,317,160, and the imports 1,848,396, of which latter about 40 per cent. were re-exported. The imports of frozen poultry amounted to 869,456 lb. There is evidently plenty of room for extension of the poultry industry in Natal.

Prices in New South Wales.

Exchanges report that record prices were obtained for poultry of all kinds at Christmas in the Australian markets, due to demand growing more rapidly than supply. Stocks in cold storage were exhausted early, and the fresh goods were totally inadequate to meet requirements. The opportunity should be taken to preach the gospel of advanced production, and to enhance as far as may be the quality, for by such means profits are secured.

Mr. T. B. Tinson.

The secretary of the South African Poultry Association, Mr. T. B. Tinson, has been ill for several months, and has been compelled to resign that important position. High praise is given to Mr. Tinson

for the way in which he devoted himself to the arduous task in hand, with hopes for his speedy recovery.

An Old Story.

Human nature is the same all the world over and experience wonderfully uniform. A writer in one of our South African contemporaries says: "We think the Government should pass an Act making it a punishable offence to offer for sale a stale or rotten egg. As you are doubtless aware, farmers bring in their eggs to the country merchant, who accepts them as to quality and size without question. The larger egg dealers gather the eggs from the merchant and have to take them from them as they receive them, without candling. It is true that in order to protect themselves against loss they have to buy them lower than they could afford to pay if the eggs were all first-class quality. As it is now, there is really no encouragement for the honest farmer to market his eggs while fresh, as he does not get any more for them than the dishonest farmer who markets stale eggs. Farmers knowing this often hold eggs several months until the price advances, and then bring them out and sell them as new laid. At the present time we are receiving considerable quantities of new laid eggs which, on careful candling prove to be practically all held stock, the farmer no doubt eating his new laid eggs at home, and bringing out the held stock and selling them as new laid."

SOUTH AUSTRALIAN NOTES.

By Our Special Correspondent.

THE results of the fifth Egg-Laying Competition up to December 31 are as follows: Section 1 (Light Breeds): This section includes White, Brown and Black Leghorns, and Minorcas. Total for six hens from April 1 to December 31 is 1,116 eggs, while highest total of the week ending December 29 is 36. The pen, however, that heads the list for the week is only tenth on the list; the breed in both instances is White Leghorn. Section 2 (Heavy Breeds): This section includes Wyandottes and Orpingtons of all varieties. Total for six hens from April 1 to December 31, 961 eggs, highest for the week 28 eggs. Silver Wyandottes are top in both instances. There are twenty-eight competitors in each class. It is a great surprise to many that the six birds belonging to A. E. Kinnear are so far down the list in this competition (twelfth), as they are the same strain as the pen that did so exceedingly well in the previous competition. I have no doubt, however, that when the year is up a satisfactory explanation will be forthcoming, and if I know the "Kinnear" brand, and the rumours that are about regarding the cause are correct, the explanation will be worth watching for, because what Kinnear does not know about getting the best out of poultry there are few in South Australia can teach him.

The Commissioner of Crown Lands has authorised a further Egg-Laying Competition to commence immediately on the close of the present one (April 1). The contest will, as usual, take place at the Government Agricultural College, Roseworthy, and be under the direction of the Chief Government Poultry Expert. The conditions this time provide for three sections:—Section 1: White Wyandottes only. Section 2: For all other light breeds, Leghorns, Minorcas, Andalusians, Anconas, etc. Section 3: For heavy breeds, Orpingtons, Plymouth Rocks, Wyandottes, Langshans, Dorkings, etc.

The total amount to be given in prizes is £65, and is allotted as follows: £7, £3 10s., £2, £1, and 10s., in each section for highest market value of eggs laid during the year. A special prize of £5 will be paid to the owner of the pen producing the highest market value for eggs in any section, also monthly prizes of 10s. per month in each section for highest market value of eggs laid during the month. Entries are invited from all parts of Australia.

Per s.s. Geelong, which sailed on December 23, Mr. Padman, the owner of the winning pen at the 1907-8 Egg-Laying Competition, shipped four White Leghorns to the Worcestershire Poultry Farm near Bromsgrove. As we are hoping that this is only the precursor of many such orders from England, the eyes of all our breeders are necessarily upon them, and we can only hope that they will arrive looking as well as they did when shipped.

POULTRY IN RHODESIA.

WHILE politicians wrangled over questions of political paramountcy and the eyes of Europe were fixed on the gold reefs, there was little hope of recovery in an essentially agricultural country like South Africa. Time has, however, brought about a saner state of mind when we find Professor Robert Wallace reporting to the British South Africa Company on the agricultural possibilities of Rhodesia. The lecture which he delivered before the Royal Colonial Institute recently on this subject dealt principally with Rhodesia, which he described as pre-eminently a cattle country; but Rhodesia affords a suitable field for capital and knowledge in the keeping of poultry, as well as a ready market for the sale of eggs. The Professor's remarks on this point are therefore interesting:

> Skill (he said), in the management of poultry reaps a maximum reward in Rhodesia. Poultry of all kinds treated with a due amount of attention and technical knowledge live well and pay well. This satisfactory state of things for the man with the necessary experience is in a great measure due to the fact that with neglect good poultry do badly or die out more readily than they would do at home. Hardy little native fowls, which have for generations lived about the kraals without being systematically fed, survive, and even give better returns in a small way than when supplied with mealies—a too fattening diet; but imported fowls are liable to contract from the native stock diseases to which many succumb, and they should consequently be scrupulously kept apart.

Disease, however, makes ravages in stock farms, and poultry are not immune from the havoc of insect life. Alluding to this point, the Professor continued:

> To safeguard them (poultry) from diseases produced by tick bite, and to save them from other blood-sucking parasites, it is necessary systematically to dip poultry every fortnight in emulsions of coal-tar

products and to spray the insides of their houses with lysol water and even to put a few drops of that excellent antiseptic in their drinking-water. The management of poultry requires system and attention; but, nevertheless, it may be made one of the most important and remunerative of the minor industries of the homestead.

This is an interesting opinion, to which attention should be paid. In a growing country it is manifest that there is room for an industry which supplies one of the necessaries of life. But the assumption is more than warranted by actual facts. So far as eggs are concerned, South Africa is a large importer. In 1907 the figures for the whole of South Africa, including Southern Rhodesia, show an import of 16,685,473 fresh eggs, and for the first nine months of 1908 the latest official returns give the figures as 15,460,637. The point need scarcely be laboured. There is a large market to be supplied, and with system and attention the scientific poultry keeper might reap a harvest from the high prices which obtain for eggs in mining centres.

REVIEWS.

Poultry for Profit: Being Division II. of Poultry for Prizes and Profit. By James Long. New and Revised Edition by W. M. Elkington. Upcott Gill. Price 3s.

HERE is an excellent little manual which will serve to inform or refresh the memory of many a poultry keeper. As it is more than thirty years since the original edition was issued it need hardly be said that Mr. Elkington's "revision" practically amounts to complete re-writing. Every phase of utility poultry-keeping is touched on, including those of appliances and hygienics, and the whole is embellished by several full-page plates after Mr. Wippell's drawings and a number of sketches and diagrams. The farmer of many acres, the possessor of a back-yard run and the intermediate classes of those who keep fowls, ducks, geese, or turkeys are all catered for. A particularly useful feature is the "Calendar of Work" that constitutes the last chapter; under the heading of each month are practical hints as to what to do and warnings as to what to avoid. Useful and timely also is the reminder to the amateur that poultry-keeping is not the shortest and easiest road to a handsome income—a truth that many of the older text-books ignored, even if they did not suggest the very opposite. Nobody could derive harm from following any of the advice contained within this handy volume, and the majority of its readers should be greatly benefited by its catholic wisdom.

Poultry for Prizes. By James Long and W. M. Elkington. London: L. Upcott Gill, Bazaar Buildings, Drury Lane, W.C. Price 3s.

THIS is the title of a new and revised edition of Division I. of "Poultry for Prizes and Profit," which was written many years since by Professor James Long. For all practical purposes, however, it is an original work, since, as the author states in his preface: "In accomplishing my task of bringing this book up to date the work has been practically re-written." The sub-title of the book states that it is "a complete and practical guide to the breeding and management of all varieties of poultry for exhibition," while among the advertisements we find that it is "a standard work as to the points of the various breeds," and the author claims "that no person who reads this book and acts upon the advice contained therein need fall into the errors that have proved fatal to so many beginners."

It is our custom to read the preface and the advertisements of a specialist work ere perusing its contents, since they indicate what one may expect by going carefully through its pages. We have done this with "Poultry for Prizes," and briefly we may say that in a large measure it merits its title. Taken generally, the information given by Mr. Elkington is of a sound and practical character. His advice to beginners is well worth perusing by all of those who contemplate taking up the culture of fancy poultry. The chapters on the management of exhibition stock and its preparation for the show pen are to the point. The descriptions of the several breeds and their varieties and sub-varieties are lucid, although in one or two instances their grouping is somewhat singular. Thus do we find what has for long been known as the Mediterranean group divided into Mediterranean breeds and Spanish breeds, and such a popular and all-English breed as the Sussex, classed under "Other Distinct Varieties."

The work is of too small a compass to treat at all extensively with the details of breeding for show points. Some useful hints are given on the subject in connection with most of the varieties described; and since "there is no fixed rule in breeding exhibition poultry," and "breeding is to some extent a matter of chance" (we quote from the author's words at page 9), they will no doubt prove sufficiently interesting to the amateur and beginner. The book is profusely illustrated.

As a fancier's work, "Poultry for Prizes" in its present form, and despite its one or two slight failings, is a welcome addition to our library on poultry literature, and we feel sure that it will be widely read by those who have the culture of fancy poultry at heart.

Small Eggs.

Like other defects and advantages, small eggs and large eggs can be eradicated and cultivated respectively by means of selection. Birds that have a tendency to laying small eggs should be kept out of the breeding pens, and those that lay large eggs should be bred from. But there are also remedies for the two causes mentioned, namely, premature egg production and stunted growth. The one cause is somewhat dependent on the other, but not entirely so. Pullets that appear likely to commence to lay before they reach the age of six months should be changed from one run to another, and this treatment should be repeated as often as necessary. Sooner or later, of course, egg production will be commenced, but by this treatment it is postponed for a period, varying in length according to circumstances, and both of the causes mentioned above are guarded against, as postponement of egg production gives opportunity for further development of the pullet.—*Farm and Garden.*

THE GUINEA PRIZE ESSAY.

(The following has been judged to be the best submitted in the Competition for Boys and Girls under 15 years of age. We reproduce it exactly as written by Miss Lukes.)

UTILITY POULTRY KEEPING.

THE Utility Branch of Poultry Keeping is reco nized all over the United Kingdom, one cannot traverse any part of Southern England without coming across a Utility Poultry Farm of some description which shows at once how widely the Poultry Industry is taken up in this Country.

In all counties in England, large Poultry Farms have been established of recent years, annually rearing hundreds of chickens which are either fattened for Human consumption, or retained as layers to supply the demand for eggs in the Markets. To keep up this huge demand for eggs and poultry in England large consignments are exported from Foreign Countries, as not nearly enough eggs can be produced in England, but the Foreign eggs cannot be relied upon as being new laid, and the English Fowls are always bought in preference to the Foreign, so therefore there always will be a demand for English eggs and Poultry.

From March till about August hens generally become broody, this is easily detected as the hens have a great tendency to occupy the nest and will resist any encouragement to induce them off. If the hen is allowed to sit, it is first given a trial on some artificial eggs and if it sits on them well it is trusted with a sitting of real eggs. During the period of incubation, the hen will eat but very little food, and what it does require is only ordinary grain.

After the hen has been sitting for 21 days the chicks usually begin to appear. They are allowed to remain with the hen until all are hatched when they are transferred from the hatching box into a coop where the hen is to rear them. During the first twenty-four hours of their life the chicks require no food whatever, as previous to hatching, a part of the egg is absorbed into their body, which is sufficient sustenance for at least twenty-four hours. The first meal consists of food that is easily digested, such as the yolk of an egg minced finely, and this thrown to them is readily consumed, and as the chicks grow older and develop in body, they require more substantial food to form their bones and assist in their development. At six weeks old (weather permitting) they are taken away from their guardian, by this time all are fairly well feathered and do not require any artificial rearing. At three months the sex in most breeds can be detected and cockerels are kept separately from the pullets as the latter get on much better by themselves, and at this age pullets should receive all attention available and the poor ones picked out so that only those with the best prospects are retained as layers and breeders.

If a poultry-keeper desires his birds to lay eggs in abundance he must only breed from birds that have distinguished themselves as prolific layers, he cannot expect to get large and an abundant supply of eggs, if he breeds from birds that are only noted for their table qualities. Then again on the other hand if birds to meet the requirements of the table are chosen from a flock of layers, dissatisfaction will be in all probability inevitable.

The Food and Feeding of Fowls is very important, no living creature of any kind will thrive without good food and Poultry are no exception. Quality, the right quantity and regular feeding hours are the rules of Modern Poultry-Keepers. The quality of the eggs depend entirely upon the quality of the food.

A laying hen naturally enough requires more food than a hen not laying, the laying hen not only has to keep up its bodily warmth and strength but it has to find food to produce eggs. The bulk of an egg is albumen and the shells consists of lime, therefore to produce large eggs, food with these substances in it, is absolutely essential. Growing stock require food to form their frame, such as bones feathers etc., and if food for this purpose is omitted from their daily diet the birds' growth be retared and subsequently will not be matured by the time the cold wintry weather sets in and hence will prove of very little value as Winter Layers.

Annually the fowls shed their feathers and the formation of new ones takes place, this generally occurs from August till about the end of November and is known as moulting, and during moulting the fowls are in a very poor condition and should receive extra nourishing food. While moulting the birds of course do not lay, and it would be almost impossible for them to lay in such a condition.

A Young bird can get through the moult in a much less period than an old bird, it generally takes on an average about a month, or six weeks.

The birds that finish moulting about the end of September, with good food, make the best winter layers.

There is great divergence of opinion as regards cross bred and pure breds, some breeders advocate cross-breeds for egg production and table purposes combined, while others are of opinion that pure bred birds are superior in every respect. A good cross with a Dorking Fowl and an Indian Game will produce an excellent table fowl while a cross between a Mediterranean Bird and an American Fowl will prove an excellent all round fowl.

Utility Fowls to be kept in good health and condition should have their surroundings kept clean, as this not only benefits the fowls, but diseases are thus avoided, and if they are taken care of in every way, the fowls will make good the extra attention bestowed upon them, and if properly managed they will recompense their owner by way of an additional supply of eggs throughout the year, which will always be readily accepted and cottagers and householders will find that, as a profitable hobby, Poultry keeping is unequalled.

Jessie J. Lukes (aged 14), 14, Darnley Street, Gravesend.



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THE MODEL POULTRY FARM.

THE name of Mr. W. H. Cook is so well known as that of an expert breeder and exhibition judge, and his "Model Poultry Farm" at St. Paul's Cray, Kent, has been so often described in print, that any fresh account of his yards may seem to the average poultry keeper to savour of repetition. Yet, as a matter of fact, this is very far from being the case. The truth is that Mr. Cook, so far as the breeding of high-class stock for both utility and exhibition purposes is concerned, does anything but repeat himself. He is always experimenting, always trying to improve varieties to the high summit of perfection; and though he has not yet, like his father, brought out a new breed, he is ever busy developing the old ones, especially that of the Orpingtons, which his father made famous. We offer, therefore, no apologies for writing about such familiar ground as the Model Poultry Farm, since there is nearly always something fresh to be seen there.

Moreover, Mr. Cook invites all and sundry, purchasers and non-purchasers alike, to inspect his premises, and this fact alone would deserve the recognition of publicity in this journal, if no other were forthcoming. For the Londoner who wishes to learn something useful about poultry there are not many farms within a radius of twelve miles that he can visit. St. Paul's Cray, however, is very easily accessible. It can be reached, more or less comfortably, from no less than four stations. It is situated, moreover, in the country of the Crays, which might be described as pure suburb in point of distance and pure country in character. The air blows fresh through the valley here. There is none of that indefinable sensation of bricks and mortar and chimneys, that oppresses the visitor to so many places within a short ride of London. And when one arrives before the old-world farmhouse which Mr. Cook has made his home for the last five years or so, one seems to be further out than even St. Paul's Cray. Behind this pretty, old-fashioned residence the ground falls gently, then rises again, until from the far side of the valley one can overlook the house and the whole area of pens and houses that constitute the Model Poultry Farm. The sweeping undulations of country, the clear air, the sense of openness all round, are ideal; everything, in fact, satisfies except the soil, and the soil is the heaviest of clay, calling forth the best efforts of science to enable poultry, more particularly the light breeds of poultry, to flourish and thrive thereon.

The paramount impression, perhaps, that one gains of the farm itself is that of its compactness. In comparison with some other poultry establishments, there is not a great deal of land; but what there is has been utilised so wisely and well that the compactness is not accompanied by any suspicion of crowding. In all it consists of 102 large pens and forty smaller cockerel pens, to each of which access is gained by a system of pathways, showing much skill in planning. The far boundary of these pens, so to speak, extends along the bottom of the valley; in the rising meadow beyond only one pen had been wired in the day we journeyed thither, and the remaining expanse of grass was tenanted only by isolated brooders destined for chicks that were old and strong enough to be let out of the main brooder house within the pen enclosure. The pens themselves are boarded up to two feet from the ground, and from the top of the boarding there is four foot of wire netting, reaching to the height of six foot altogether. Fruit trees, mostly cherry trees, give the shade that is requisite in summer. In the cockerel pens near the

house the necessities in the way of shade are particularly well provided for. The houses throughout are of the open-fronted pattern shown in our illustration. Their interiors are fitted with substantial perches set a few inches above drop-boards of about 2 ft. 6 in. across. The drop-board keeps the floor from



Mr. W. H. Cook.

becoming befouled, and the nature of the floor itself is extremely conducive to cleanliness and health, consisting, as it does, of stiff clay beaten down almost to the hardness of cement and covered with a litter of sand and chaff. Grain scattered over this surface and becoming assimilated therewith requires a lot of work on the fowl's part to unearth, and the bird confined to the house thereby gets a quite unusual amount of exercise—as much, in fact, as if it were at large, working for its own living on wild natural soil. It virtually amounts to this, that every house is a scratching-shed in itself. Mr. Cook's houses are an eloquent illustration of his principle of keeping his stock as nearly as possible under perfectly natural conditions. We may add that he is a firm believer in the value of creosote for the preservation of timber and as a safeguard against insects, and all his houses are creosoted. The light mahogany colour gives them a slightly more cheerful appearance than they would have if they were tarred. The inside walls are whitewashed.

The main brooder-house has some features of interest. Externally it is a parallelogram, with small outer runs laid out in the shape of a fan on the south side. The partitions dividing these runs, constructed of boarding and wire netting, are high enough to prevent any chick's escaping but not so high that one cannot step over them. The brooders inside extend in a continuous line along the building, and are very simple and efficient in construction. Each is heated with a paraffin lamp so made that a current of air, passing underneath the floor of the brooder, comes up inside the exterior framework of the lamp and carries all fumes up through a vent in the roof. Every brooder has its littered run attached, to which the chicks are confined in cold weather by closing the outlet to the grass run outside. When a chick has been here for four or five weeks it is—assuming it is quite strong—transferred to one of the single brooders outside, in which the same sort of heating apparatus is employed, but where the life is less restricted and there is more exposure to be faced, "no coddling" is a maxim on which Mr. Cook lays great stress. The classification of the thousands of chicks hatched and reared involves a tremendous amount of labour. Every one is ringed, and as about 3,000 are raised annually, the detail work necessary may be realised without great difficulty.

A big business in day-old chicks, such as Mr. Cook possesses, hypothecates the wide use of incubators. The incubator house contains eight of these instruments, and there is one more elsewhere, making nine in all, with capacity for 1,320 eggs. The floor, as in the other houses, is of clay and sand, and it is worthy of remark that this allows the moisture from the soil to filter upwards into the room, which would not be possible were concrete or some other air-proof sub-



Type of Open-Fronted-House. [*Copyright.*

stance employed. In connection with the extensive use of incubators and brooders, one may note that Mr. Cook has absolutely no prejudices in favour of the "natural" method of hatching and rearing; he is convinced by his own experience that the mechanical instrument, incubator or brooder, so far from detracting from the health and strength of a chick, may in certain circumstances safeguard it.



MAIN RANGE OF BREEDING PENS. [*Copyright.*



BROODER HOUSE—EXTERIOR. [*Copyright*

The "hospital" in which the patients are not only gathered from the Model Poultry Farm but also from neighbouring poultry plants, the exhibition room, the egg store, the carpenter's shop, and the other buildings on the farm, need not be described in detail. Neither is it necessary to enumerate the different breeds represented in the 900 birds that he has at present mated up; they are given in Mr. Cook's catalogue, and it is sufficient to remind the reader that he has won with many other breeds besides the Orpingtons, and that neither his home trade nor his large exports to America, Australia and the European continent are confined to the Orpington varieties associated with his name. In regard to the food question, he follows the orthodox principle of a hot meal in the morning and dry grain at night, the grain being chiefly the best—and he is careful that it is the very best—maize, wheat, and oats; and as well as securing the best quality, he gives as much variety as possible. He has no fixed rules for quantities; it depends entirely on the fowl; indeed, he has no rules at all on the food question except the rule that every bird must be fed according to its individual needs. Exhibition stock requires more stimulating food than utility stock, and it gets it accordingly. Some breeds exercise themselves so thoroughly that they require an extra allowance to balance their expenditure of energy. Perhaps the most important point to notice in connection with this subject is the fact that the male birds are fed specially and separately, observation having proved that a cock or cockerel, occupied in gathering his hens around him, stands but a poor chance of securing a decent meal before the lot has been consumed by his greedy female associates. Consequently he is left out when they are shut up in the house, and enjoys solitary possession of the run and of a fresh supply of grain.

In mating, a male bird to four hens is considered by Mr. Cook to be a fair average, though here again everything depends on individual idiosyncrasies. The males, however, are never bred from for more than five months in the year, the result being that their vigour at the proper season is ensured. There remains but one other matter to be mentioned in this brief account of the Model Poultry Farm, namely, the pupils. These are strictly limited in number, three or four being the average, and each receives a personal training in the business; and since Mr. Cook's business covers practically every section of utility and fancy poultry-keeping, the value of such catholic education need scarcely be pointed out. Not one, assuredly, could fail to be influenced favourably in his after career of poultry-keeping by the sound principles and systematic methods with which he was in daily contact during his sojourn here.



BROODER HOUSE—INTERIOR. [*Copyright.*

ANSWERS TO CORRESPONDENTS.

The Editor will be glad to hear from readers on any Poultry Topics, and all Queries addressed to the paper will be answered by experts in the several departments. The desire is to help those who are in any difficulty regarding the management of their poultry, and accordingly no charge for answering such queries is made.

Feather Eating.

"Being a subscriber to the above periodical, which I may here mention I consider excellent value for money, I herewith ask your advice regarding my chickens, which are in the habit of eating the feathers off their backs. I feed them on a mash meal in the mornings, and give them mixed grain generally in the afternoons, and also some ground bones two or three times a week, but I cannot understand what entices them to eat their feathers in the way they are now doing, and I shall feel much obliged if you can let me know through your columns to correspondents how I can prevent the same."—V. V. (Hammersmith).

The cause of your birds eating their feathers is probably idleness, and some occupation should be provided for them. The grain should be buried in chaff or straw, as this keeps the birds busily occupied. Feed sparingly, as feather eating is often due to the birds being in too fat a condition. A half mangel or turnip suspended from the roof of the run to within about a foot of the ground also affords the fowls amusement and exercise. Broken oyster shell should be liberally supplied, also some flesh food, such as worms and grubs. The habit is quickly acquired by other fowls, so if the culprit can be discovered it should be placed by itself. The bare places should be washed, then rubbed with vaseline or olive oil mixed with a tenth part of carbolic acid.

Stocking Pea Fowl.

"Can you give me any information about pea fowl—as regards feeding and management? I wish to stock these birds, but can find nothing about them in any of the ordinary poultry papers."—W. B. L. (Nr Wells.)

The subject is only referred to occasionally in poultry and other journals owing to the fact that the interest in pea-fowl is strictly limited, nevertheless the birds are as interesting as they are beautiful, and well worth the attention of those with the opportunity to stock them. As regards a suitable range, you must bear in mind that they do not get on in company with other fowls—to the detriment of the others; and although they thrive on all the usual poultry foods, they will also consume many buds and succulent growths—which is disadvantageous in some situations. In a general way their requirements are very similar to those of turkeys, and their management may follow the same broad lines. From two to five hens should be run with a cock, because in stocking only a pair the probability is that the eggs would be infertile. The incubating period is twenty-eight days, and there is more chance of success if the pea hen is left to her own devices. Supply the young with the same food given to young turkey chicks, but allow more animal food.

Poultry-House Construction.

"In preparation for poultry-keeping I am thinking of building a house according to a design I have seen, but do not know whether it is better to use matching or weather boarding—which do you advise?"—T. M. F. (Bingley).

Unless you prefer to do the work yourself, and are sufficiently competent to do it economically, you will do better to buy a sectional house from one of the appliance makers. As a rule, the amateur carpenter cuts his material to waste, and the finished article is not always satisfactory in all particulars. In any case matching is preferable, and has very generally replaced weather boarding for the purpose. The tendency of the latter is to warp and upset the system of ventilation; and if used for roofing the rain will sooner or later drive in under. If you do the building and buy the matching, you will find that the 4½ inch width is the best, because warping and shrinkage will have less effect in widening the joints.

Feeding Chickens on Dry Grain.

"Please let me know if you approve of feeding chickens exclusively on dry food, and if so what is the best food for the purpose?—A. R. K. (Cley, Norfolk).

If the chickens are intended for stock purposes they may be fed up to the age of a month exclusively upon dry grains, but if they are for marketing purposes two meals of soft food per day should be provided from the very first. After they are a month old, for whatever purpose they are intended, they should receive a meal of soft food first thing in the morning and another about 2.30 p.m. There are several excellent mixtures on the market, as you will see by referring to our advertising columns. The question of rearing chickens on dry food will be fully treated in a later issue.

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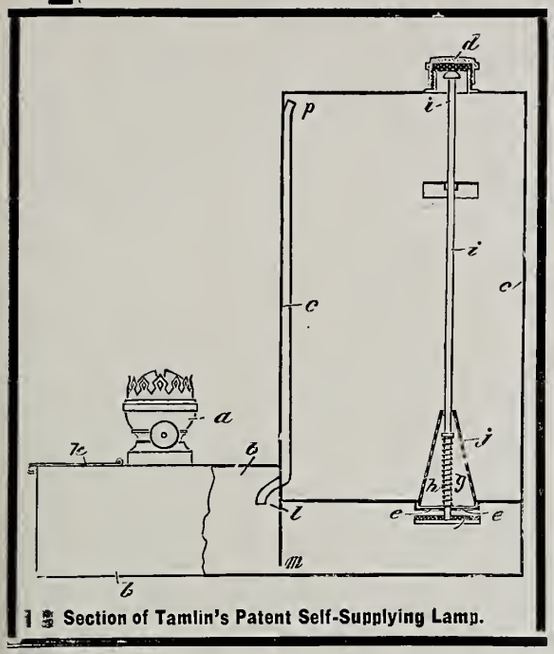
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NOTES FROM CORRESPONDENTS.

SCOTTISH NOTES.

By A. M. PRAIN. J.P.

The hatching season is on us again, and on the whole the weather has been favourable for fertile eggs. Anyone whose memory can go back nearly thirty years in the poultry world, as mine can, must wonder where the rigorous, frosty winters have gone to. Well do I remember 1880-81, 1887-88, and 1904-05, and what a job it was to keep combs and wattles from getting frozen. I have no wish to renew these experiences. Much do I prefer a moderate winter such as we have just passed through, which leaves the stock birds vigorous and healthy for the important work before them. Scottish fanciers read with envy the glowing accounts of big hatches, incubators bursting their sides to let the chickens out, every egg fertile, etc., which appear weekly in the poultry papers at this time of the year. Some of the more knowing ones smile in their pawky way over their evening pipe, others take it all in and write off post haste for a sitting of these champion layers and prize-takers. Early hatching is not, however, universally in favour in the North. Probably April sees most of this work, and even as late as May many broods first see the light. The classification of our early agricultural shows is not comprehensive enough to tempt exhibitors to hatch early, though the Highland and one or two others have a splendid classification and good prize money. It is a pity the agricultural shows will not see their way to give demonstrations in killing, plucking, trussing, etc., as is done in Ireland. It would be even a greater attraction than butter-making, and is more urgently required.

The fattening of poultry is still in a very undeveloped state, which is due largely to the lack of training either at shows or through technical teaching. When one sees what Ireland has accomplished under the poultry schemes devised by the Department of Agriculture and Technical Instruction, and carried out by the various county committees, it is a matter of urgent regret that such an example does not stimulate the demand for similar instruction in Scotland. My work—lecturing all over this country—shows me very clearly how seriously handicapped we are, and how urgent is the need for a Board of Agriculture to foster and develop this hitherto

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The Competition, which closes on May 31st, 1909, is limited to amateurs whose stock of breeding fowls does not exceed twenty.

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N.B.—Each Competitor who secures 10 or more Annual Subscribers will receive a copy of "The Illustrated Poultry Record" for one year Free of Charge.

REGULATIONS.

1. The name of the Competitor is to be sent to the office for Registration.

2. The Competitor must forward the names of Subscribers obtained to the office as received. The Subscription will commence with the next issue.

3. With each Subscriber's name, 6/- must be enclosed when the paper is to be delivered through a Newsagent, or 8/- when the paper is to be forwarded by post. All Colonial and Foreign orders must be accompanied by 8/- (except Canada in which case 7/- is the amount), as arrangements cannot be made for delivery abroad by Newsagents.

4. If the Subscriber prefers to pay his Newsagent the Annual Subscription, the Newsagent's receipt for payment of a yearly order will be accepted.

5. If two or more persons secure the same number of Annual Subscribers—which is very unlikely—the Editor reserves the right of extending the period of Competition for one month.

6. If the successful Competitor wishes to do so, he or she may nominate another person for the Prize, subject to the approval of the Editor.

7. Before the award is announced, the Competitors' Lists will be checked by Messrs. SMITH & LONGCROFT, Chartered Accountants, 41, Bishopsgate Street Within, London, E.C.

8. Should the winner live outside the United Kingdom, and elect to take No. 1, he or she would pay travelling expenses to England, or take a shorter course, subject to the approval of the Editor.

9. The latest date for receiving Subscriptions will be as follows:

United Kingdom..... Sept. 30,

The Continent, Canada, and U.S.A. Oct. 10,

The Colonies, &c..... Oct. 20,

and the result will be announced in the November issue.

10. The Editor, Sectional Editors, and members of the Office Staff and Newsagents are prohibited from competing.

11. The Editor's decision must in all cases be accepted as final, and all Competitors must enter on this understanding.

neglected industry. Much is hoped for from the Report of the Departmental Committee on Poultry-keeping, which is expected shortly.

I am glad to see that the merits of the Single-Comb Rhode Island Reds are beginning to be appreciated on this side of the Atlantic. I was very much struck with this breed when I was in Canada last autumn; so much so that I bought a very fine pen, which is now on its way to my yards. The type is altogether ideal, very neat head, large, well-curved body on medium-length legs. The colour in the cock is very bright and attractive, but I did not see any hens just as I would like. There seems a lack of lustre in their plumage somehow. From all I could gather on the other side, no other breed equalled them as layers in the winter, while they forage well and are capital table fowls. Let us keep to these points with one breed at least, say I, and let colour, etc., be of secondary importance. With this pen from Canada, and a few sittings of eggs direct from America's most famous stud, I hope to lay the foundation of a really useful strain of birds for this climate. Plymouth Rocks and White Wyandottes are also on their way across the pond, as I could not resist the temptation to try these side by side with my own. I hear of new fanciers starting up almost every day. We are slow to move up here, but when we take hold of a thing we keep it, so I look for big results in a few years. If we cannot get these very early chickens, we can score in vigour and constitution, and these are worth waiting for.

IRISH NOTES.

By MISS MACQUILLAN.

The Limerick County Committee of Agriculture has at last taken advantage of the Department's poultry scheme, and a step in the right direction has been taken in securing the services of Miss Campbell as instructor, who, by her qualifications and experience, will no doubt very soon bring co. Limerick into line with the other counties which have been more enterprising in the matter of poultry instruction. Miss Campbell has been associated with the Department of Poultry Schemes almost since their inception, and is a good organiser and an able and interesting lecturer, with a practical knowledge of her subject, combined with an intimate and sympathetic acquaintance with the country folk, their modes and ways. Residents in co. Kilkenny, where she held a similar post, have signified their appreciation by making Miss Campbell a handsome presentation on her departure for co. Limerick, where we know that her talents will be loyally devoted to the furtherance of the poultry industry within its borders.

Revival of Gorey Fowl Market.

Gorey fowl market, which had ceased to exist for the past six years, has been again revived through the efforts of the Gorey Traders' Association. This town in North Wexford should be one of the best market centres in Ireland, as the county has a reputation for table birds of excellent quality. The market, which was formerly a good one, gradually died out, chiefly owing to the way in which the people were treated by local buyers, who employed a number of men called "chicken blockers." These men would offer a price, as the fowl cars came in,



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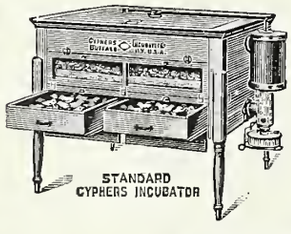
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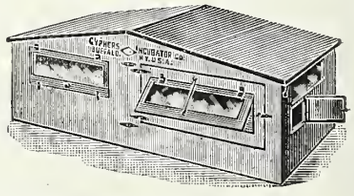


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Further, 25 per cent. of our winners laid over **200 eggs each,** obtaining the three **highest scores** in the Competition, viz. Buff Rocks 216 eggs, White Wyandottes 213 eggs, and Buff Rocks 206 eggs, whilst **all the other competitors together** only produced two birds to exceed 200 eggs each.

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Mr. STANLEY WILKIN, Tiptree, Essex, writes, January, 1909—"I can bear witness to your laying strain. Three pullets from your eggs laid: 226, 226, and 235 eggs in a year, and another laid 185 in nine months and a week. My best layers this autumn have laid 85 to 95 eggs in four months, and are the daughters of a 212-egg hen sired by your cock."

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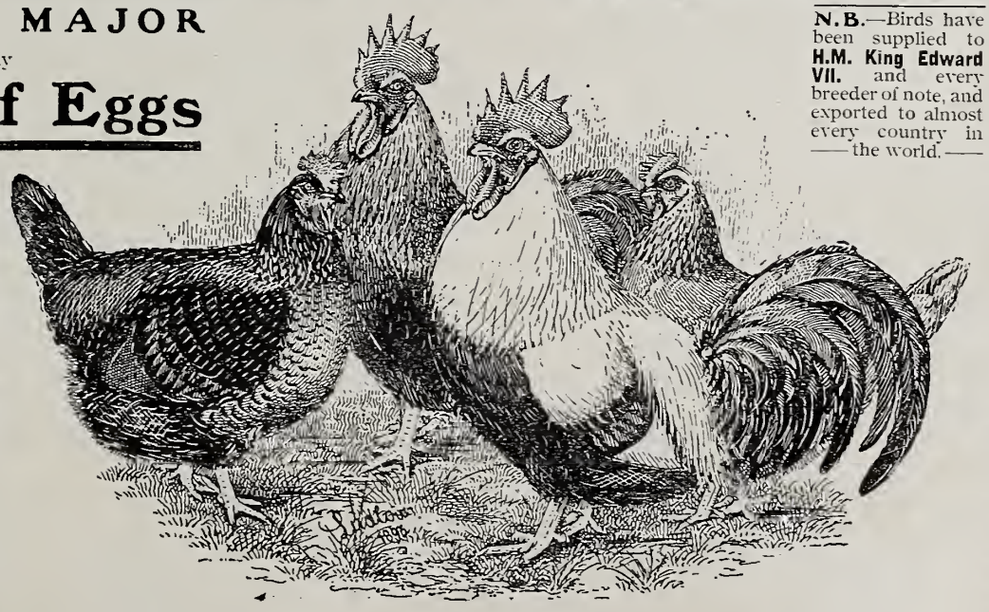
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Sittings of Eggs

From his Champion Silver Grey and Dark Dorkings. His strain is the work of 25 years' careful breeding. No expense or trouble has been spared to bring it to perfection, with the result that to-day he possesses the finest stud of Dorkings in the World.



The Silver Grey Dorking Club Challenge Cup was again awarded to his bird this year at the Crystal Palace, making two years in succession and four years altogether, and two Champion Cups at Birmingham, besides first and special prizes at Haywards Heath, Royal Show, Dairy Show, and at all the principal shows.

EGGS 1/- EACH. If less than 8 hatch from 13 eggs, another sitting will be supplied at half-price.

ARTHUR MAJOR, DITTON LANGLEY, BUCKS.

and if the offer was not accepted would sit up on the car and defy other buyers to come near. The state of affairs became so bad that gradually people took their chickens to Ferns and other local markets, and Gorey fowl market was a thing of the past. About six weeks ago the Traders' Association took the matter up, and the first market was held on the 31st ult. and was a great success. The streets were literally crowded with cars full of fowls, and buyers attended from the surrounding towns and from Avondale, the Department fattening station. Prices ranged from 3s. 9d. to 4s. 6d. per pair, which cannot be considered bad for the time of year, and I understand Mr. Holmes, the Avondale expert, considered the market a good one and the quality of the birds on the whole satisfactory.

By MISS MURPHY.

Miss Kildahl, who is the "Government Henwoman" for West Cork, is at present engaged inspecting her sixty-two egg stations; she has added four new ones this year, making a total of eight new stations since she began work in 1906. The last station (of Light Sussex) has been placed at Glengariff, one of the most beautiful spots in the south. This is the second station of Light Sussex placed in the county, the first being kept by Mrs. Carroll at Coachford. The most popular breeds are, however, of the non-sitting type, quite three-fourths of the West Cork fowls being of this class.

The South Tipperary Committee of Agriculture are to be congratulated on having secured the services of Miss C. O'Sullivan as poultry and dairy instructor. We understand there were eleven candidates for the post, which must be taken as a tribute to the reputation of the committee for their generous treatment of, and friendly feeling towards, their officials. These little bits of news have a marvellous way of travelling about, so that when a specially desirable county is vacant there is no lack of applicants. One great point in favour of South Tipperary is the excellence of the roads, which are steam-rolled and can be ridden by a lady cyclist in the worst weather. This means a saving to the committee and makes the work easier for the instructor.

Miss Horgan is winning golden opinions in Kilkenny, where she has just completed her first course of lessons (practical and tutorial) at Ballyragget.

In an interesting account just to hand from the West, we learn that eggs at the time of writing were 1d. each in Belmullet, one merchant in the town taking in 2,000 per week at this price, which is much above that paid in February in previous years. Our correspondent adds that the eggs were not only perfectly fresh, but clean and of good size.

Southern poultry instructors are anxiously looking forward to see what steps will be taken by the egg shippers to ensure Irish eggs arriving in better condition at the other side. Following the Grocers' letter to the vice-president of Department, the Northern shippers have notified their customers that they will no longer purchase dirty eggs. The same rule is most urgently needed in the South; perhaps, indeed, the need is even more pressing. There is no denying the enormous strides poultry culture has made since itinerant instruction started eight years ago, but even the most enthusiastic amongst us must acknowledge the fact that the full value of a great deal of what has been done is at present lost owing to want of care in marketing by the producer.

LECTURES should always be illustrated, as by this means their value is greatly enhanced and made more effective.

The Illustrated Poultry Record Series of Lantern Slides

has been designed to meet the requirements of Lecturers and Poultry Keepers, County Council Committees, Societies, and Clubs. It is most complete and up-to-date in all respects.

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Lecturer and Judge,

Member of 14 Specialist Poultry Clubs, can now supply eggs from pens which contain the very cream of his stock. Every bird has been specially selected and most carefully mated. Inspection cordially welcomed.

White Leghorns, No. 1 pen, 30/- per sitting. Excels in purity of colour and size
" No. 2 " 20/- " Almost as good.
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Black Leghorns, No. 1 pen, 20/- per sitting, Challenge Cup Club Show Cock heads this pen. **Ditto** No. 2 pen, 7/6 per sitting. Extraordinary layers

Minorcas. No. 1 pen, 20/- per sitting. Every bird a gem,
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" No. 2 pen, 7/6 " Best Winter layers out.

Plymouth Rock. Can only spare a very few sittings from very select birds, at 20/- per sitting.

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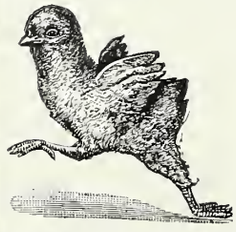
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ARMITAGE BROS. LTD., Specialists, NOTTINGHAM.

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Orpingtons
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Grand in Shape and Colour.

Won SILVER CUP on Best Coloured Hen, 456 Birds Competing.

KINEY I. MILLER, Box 13,

EGG ORDERS BOOKED NOW

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BARRED PLYMOUTH ROCKS
ARE RAISED.
F. A Bennett, S. C. Rhode Island Reds.
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WRITE FOR PRICES AND RECORD OF STOCK.
YARDS NEAR VAN WINKLE LAKE. CANTON, ILL., U.S.A.

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of Buff, Black, and White Orpington, Buff, White, Black, and Partridge Wyandottes, Blue Andalusians, Indian Game, Buff Plymouth Rocks, Aylesbury Ducks, and Mammoth Bronze Turkeys.—WM. BIBBY, *Manager.*

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Buff Orpington Poultry Farm,
NORTHLANDS, HORSHAM,

Offers his Champion Challenge Cup Buff and White Orpington eggs. Write for list with photos of the pens and prices. A few useful stock birds still for sale. Inspection by appointment; vacancy for a pupil. Last year's wins include Special, 1st, four 2nds, 3rd Chichester, (County Show); Special, two 1sts, 3rd Tunbridge Wells; two Challenge Cups best Cockerel in Show and best bird in County, three Specials, 1st, 2nd, two 3rds, 4th Haywards Heath; Champion Challenge Cup (won outright), two 1sts, 2nd, three 3rds, and 4th Dairy; two Specials, three 1sts Eastbourne; 1st, 2nd, 3rd Kendal; 1st and Challenge Cup (Buff Cocks), 1st, Challenge Cup, International Trophy (for best Buff), Medal and Special (Buff Cockerels), 2nd (White Cockerels), at the Club Shows, Crystal Palace; 1st and two Cups Buff Cockerels, 3rd Buff Cocks, 1st and 2nd White Cockerels, Birmingham.

N.B.—All winners and birds offered for sale were bred at Northlands.

1908 **NETTLETON'S LIGHT BRAHMAS** 1908

NONE BETTER TO BE FOUND.

HAVE BEEN LINE BRED FOR
YEARS FOR BUSINESS. . . . .

COLUMBIAN WYANDOTTES. Strictly line bred.

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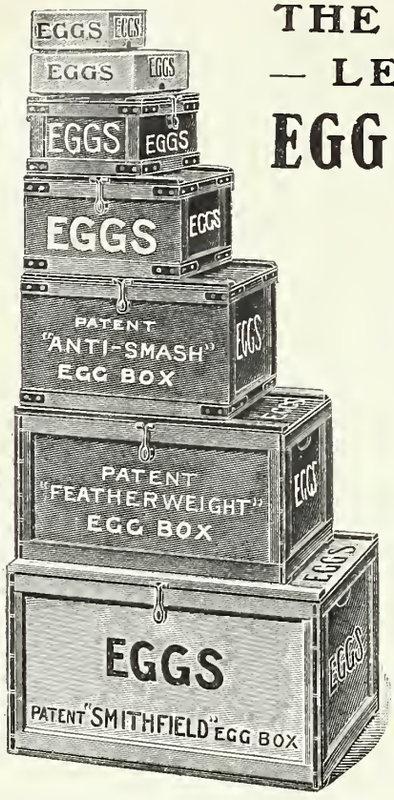
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A large stock of VERY PROMISING 1908 BIRDS now for disposal, for stock or exhibition.

Winners last Season of the Black Orpington 20-Guinea Challenge Cup (third year in succession); White Orpington Club's Cockerel Cup; The Dairy Show Gold Medal; The Poultry Club 30-Guinea Challenge Trophy; and numerous other awards. The above being all won "with Birds bred and reared" on this farm.

State requirements and I will give quotations per return—

W. M. BELL, St. Leonard's Poultry Farm, RINGWOOD, HANTS.



THE WORLD'S — LEADING — EGG BOXES.

Awarded 19 MEDALS and every 1st Prize at Dairy and Crystal Palace Shows the last seven years.

Safer and more durable than any other, and save 25 to 30 per cent. — in carriage. —

Catalogue of 170 sizes and varieties —— post free. ——

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ALL UNHATCHED REPLACED.

(Many breeders replace unfertile eggs, but J. H. V. is the original breeder to replace EVERY EGG not hatching.)

Speciality { **White ORPINGTON, 5/-, 7/6, 10/-, 21/-,* 42/-***; **Jubilee** „ **5/-, 10/-, 21/-***; **Cuckoo** „ **10/-, 21/-*** } **per sitting**

**Limited number only.*

Black and Buff Orpingtons, Black Leghorns, Black Minorcas, Barred Rocks, White Wyandottes, **5/-** and **10/-** per sitting.
White and Brown Leghorns, Black, Partridge, Silver and Silver Pen. Wyandottes, **5/-** per sitting.

SPECIAL OFFER.—Two sittings of eggs will be sent car. paid.

FOR LIST OF WINS SEND FOR SPECIAL EGG LIST.

BIRDS of **ALL VARIETIES** for **SALE** on 3 days' approval.

A few large White and Black Orpington Cockerels, **7/6, 10/6, 15/-.**

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VACANCY FOR A PUPIL.

MISS GARRETT'S
£101 BUFF ORPINGTON STRAIN,

Winners of Cups, Medals, and no end of Prizes at all the best Shows.

Grand lot of Cockerels and Pullets from **7/6** each, bred from 1st and 2nd Palace, 1st and 2nd Birmingham, two 1sts Margate, 1st and 2nd Redhill, 1st and Special Reigate, 1st, 2nd, and Special Southall, 1st and Special Okehampton, 1st Folkestone, 2nd Oxford, 1st Derby, 1st Northampton, &c.

RECENT SUCCESSES.—1st and Special Bromley, 1st, Challenge Cup, 3 Specials, 2 Seconds at Carshalton, 1st and Special Stanton, 2nd Exeter, 1st and 2nd Frome, 1st Ladies' Poultry Club, 2nd Horsham, 2nd Redhill, 2nd and 3rd Southend, 1st (£5 5s. Silver Cup) Crystal Palace, 2nd Erith.

EGGS—6/6, 10/6, 15/6. Selected **21/-.** Extra Selected, **£2 2s.** Unfertile replaced. Day-old chicks to be ordered, so many having been booked to go abroad.

SILVER CUP given for the best bird from the three best pens, or best chicks.

WELLSLEY COTTAGE, LONDON RD., SUTTON.

SIMON HUNTER,

The Largest Genuine Utility Breeder

in the world, has now on view the most valuable collection of really high-class and utility poultry to be found on any one farm, now offers

EGGS FOR HATCHING

by return, from his choicest layers, the result of 29 years' specialised breeding and selection of the following varieties :

THE PICK OF THE WORLD'S BEST

Anconas	Houdans	Silver Wyandottes
Black Minorcas	Langshans	Partridge Wyandottes
Brown Leghorns	Buff Orpingtons	White Wyandottes
White Leghorns	White Orpingtons	Barred Plymouth
Black Leghorns	Black Orpingtons	Indian Runner Ducks
Buff Leghorns	Golden Wyandottes	

PRICES :

	Per sitting.	Per 50.	Per 100.
1st pens—	10/6	35/-	70/-
2nd „	7/6	25/-	50/-
Best first crosses	5/-	15/-	30/-

Special pens.—Buff, Black and White Orpingtons, Black and White Leghorns, and Black Minorcas, 21/- per sitting.

UNFERTILES REPLACED.

Every bird mated is a typical specimen of a tested layer, while those in the 1st pens cannot fail to produce a large percentage of winners.

SPECIAL NOTICE.

NOTE.—Birds from our eggs have on two separate occasions won the first prize in the great Laying Competition, while practically all the choicest laying strains owe their success largely to an infusion of blood from our yards.

£1,000 OFFER.

Although **SIMON HUNTER** has never exhibited a fowl in his life, he claims to have the most valuable breeding stock and the best equipped poultry farm in the United Kingdom ; as proof of which he offers **£1,000** to anyone who can show a larger and better arranged genuine Utility Poultry Farm with a breeding stock equalling his own. Birds hatched from eggs we sold won premier honours at many of the best shows, both in this country and abroad, individual specimens being claimed at prices up to £50 each. From the fact of our never exhibiting customers may rely on getting eggs from our choicest specimens, our success depending solely upon the success of our customers and their recommendations. **Birds or eggs exported to any part of the world and all risk in transit taken.**

NEW CATALOGUE FREE.

Address:
YORKSHIRE POULTRY FARM, NORTHALLERTON.

CLUBS AND SOCIETIES.

The Poultry Club Year Book, 1909.

This publication is larger by forty pages than its predecessor of 1908, and gives a very complete summary of the club's doings during the past year and its fixtures for this. The annual report and rules, the greatly swollen list of members and the members' announcements occupy a good deal of space, but there is plenty of matter of more general interest, including a short history of the club, written by Mr. L. C. Verrey. In the concluding paragraphs, of this the author refers to the many difficult cases of disqualification at shows with which the committee have had to deal lately; and, apropos of his difficulty in hunting up old minute books and journals not readily accessible, suggests that it would be a great advantage if the club had permanent headquarters, where its library of reference could be maintained in proper order. "For a club," he adds, "of the proportions that the Poultry Club now is, to have no settled headquarters is a question that must seem strange to many, and if the increase of members continues at the same rate as during the past year and the volume of business expands in proportion a permanent home will become imperative for the maintenance of the honour and dignity of 'The Poultry Club.'"

The Sussex Club.

We have received the "Year Book and Statement of Accounts" issued by the Sussex Poultry Club, from which it would appear that the club is in a flourishing condition and is gaining plenty of new adherents. The membership roll now shows a total of 270. The committee are retiring, but are eligible for re-election: Messrs. D. Roberts, W. T. Cole, Thomas Pitcher, A. J. Falkenstein, Bruce F. Furniss, Dr. Gravely, and A. Haffenden; and the club judges for 1909 are as follow: Messrs. J. B. Bunney, W. W. Broomhead, Edwin Russell, S. R. Cree, T. Lambert, and A. J. Falkenstein.

The Buff Leghorn Club.

The President of the Buff Leghorn Club invites the attention of members to the following memorandum, which he believes embodies their views:

It is evident from the opinions expressed at the recent club show that there is a general desire amongst breeders of the variety to adhere to true Leghorn characteristics, and to discourage abnormal developments of purely fancy points to the detriment of the birds' practical utility; also that the present time is suitable for the readjustment of the show standard, in order to check any possible deterioration and to assure the continued utility qualities of the birds.

It appears to me that there is no sound reason why a bird of undoubted reputation as a prolific layer should not also be of handsome appearance and fit for the exhibition pen. But experience has shown that such a result is not easily attained.

(Continued on next page.)

STREET & DISTRICT COLLECTING DEPOT, LTD.

EGG BOXES FOR WHOLESALE TRADING. **Strong, Light, Cheap, & Simple** to pack or unpack.

5 dozen size 2/4
10 ,, ,, 3/-
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PURE BISCUIT AND MEAT MEAL.

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Clean Reliable Food. Free from Excess of Starch and Acid.

Containing 25% of meat 15/6 cwt., 8/3 ½ cwt., Chick or } Contains no
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The Percentage of Meat is Guaranteed on the Invoice.

Cash with Order. Carriage paid in England and Wales.

E. LEONARD LEWIS, "GROWTHO" WORKS, ARMADA PLACE BRISTOL. (Estab. 1880.)

Liverine, 17/- cwt.

Perfected Clover Meal, 12/6 cwt.

The Best Egg Producers.

LIVERINE, GRIMSBY.

All Goods Carriage Paid.

The Best Chicken Raisers.

Livo, 20/- cwt.

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THE WARWICKSHIRE POULTRY FARM.

THE BARGAINS WE OFFER AT PRESENT ARE

WHITE LEGHORN COCKS & COCKERELS & FAVEROLLE COCKERELS

At from 5/- to 7/6 each.

All sound and warranted Breeders; just the birds to fertilize eggs; bred on unlimited grass range.

SEND for CATALOGUE of BIRDS KEPT, EGGS for SITTING, and DAY-OLD CHICKS.

Send also for SMITH'S OVARY TONIC.

BAKER'S ROAD, KNOWLE, near BIRMINGHAM.

The Buff Leghorn, however, as now bred by members of the Club, offers, I believe, an exceptional opportunity of combining purity of race with high-class usefulness.

Its healthy and vigorous constitution, its rapid maturity, and its early laying capacity, as well as the small amount of food on which it will thrive, either in confinement or at large, stamp it as one of the most desirable of utility fowls. Nor can our Buffs be said, in any sense, to be "show spoilt."

The adoption by the Club of a show standard that will eliminate all that is opposed to economic qualities will, I think, place the Buff Leghorn in a unique position, and add much to its popularity.

The modifications in the existing standard would be on the following lines:

Generally—Any characteristics or developments likely to impair constitutional vigour or egg production, will be discouraged.

Size—The present standard of size is quite large enough. The unnatural development of size is generally found to be prejudicial to the laying capacity of every fowl. So long as a hen lays a large number of large eggs the smaller she is the better, as birds, like most other animals, eat in proportion to their size and weight. A small food bill, a large egg basket, and a show bird should be our combined object.

It is proposed, therefore, that cock birds should weigh under seven pounds, and that hens should be about a pound lighter. Want of size should not be penalised more than 10 points in cocks and 8 points in hens.

Combs—Unduly large combs, in both sexes, will be objected to as conducive to debility and want of vigour. In the hen the pendent comb should not obscure the eyes.

Wattles should not be too long.

Ear-lobes should be white, of good shape, but not pendent.

Want of symmetry or type, including legginess, shall be penalised up to 20 points.

It is believed that a revision of the standard on these lines will meet with the approval of our members, and it is proposed to bring the new standard into operation on January 1, 1910, unless a majority of the members express their disapproval.

(Signed) S. SANDBACH.
President of Buff Leghorn Club.

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FROM **2/-** PER ROLL

T. CHARLES,
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THE "SOVEREIGN" POULTRY PEN.

Absolutely the Best Value in England. Competition defied.

Size—6 feet long, 4 feet wide, 4 feet high.

This House is constructed of Best Quality Red Deal Boards, planed, tongued, and V-jointed by our machinery on stout framing, made in sections, easily erected, and fitted with ventilating shutters, door, perches, slide, lock and key, and 4 iron handles for moving.

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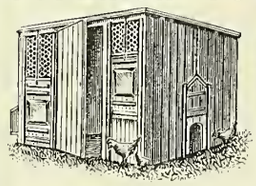
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THE
SUPERIOR FOWL HOUSE.



The Cheapest.

The Best Made.

Nothing to Equal it.

One Customer that had 13 writes:

"They are a grand lot. Shall be requiring more in the Spring. Shall certainly give you the order."

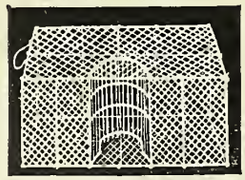
6 ft. by 4 ft. by 4 ft. high. Complete with Perches and Nest Boxes, 2 Sliding Shutters, fitted with chain. Fowl Entrance.

In Sections, only 18s. 6d. Coops 2 ft. sq. only 3s. 9d.

Illustrated Lists Free.

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WICKS BROS.' Original Registered SPARROW TRAP.
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Worth their weight in gold to—

Farmers, Fruit-Growers, Gardeners, Game-Keepers, Poultry Fanciers, &c., &c.

Recommended and used by Salvation Army Land Colony, Hadleigh, Abbot Bros., Thuxton, and many others.

Thousands of bona-fide unsolicited Testimonials and Press References.

Best and cheapest Trap ever invented. Price **4/6** each. Special offer, CARRIAGE PAID on Six for **27/-**

WICKS BROS., *Manufacturers,* **NORWICH.**

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THE "NATAL" POULTRY HOUSE.

A scientifically-constructed house, embodying all the greatest improvements at present on the market at a charge which unpractical makers of so-called poultry houses cannot compete against. Note our Specifications. No extras for nest boxes or felting the roof, as charged by the majority.

CARRIAGE PAID
to any Railway Station in England and Wales.

Length. ft.	Width. ft.	Height. ft. in.	Price. £ s. d.
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Window to Open, 1/6 extra all sizes.

ROOFING FELT.

Per roll of 15 yards, **3/-**; or 10 rolls carriage paid to nearest railway station **30/-**. Same quality as supplied to Liverpool, Birkenhead, and other Corporations, also builders and contractors all over the country. Thousands of testimonials.

BEST GALVANIZED NETTING.

Cash price, 50-yard roll.

Mesh.	1 ft.	1½ ft.	2 ft.	3 ft.	4 ft.	5 ft.	6 ft.
3 in.	2/1	3/-	3/10	5/3	6/11	8/8	10/5
2 in.	2/8	3/10	4/10	6/7	8/10	11/-	13/3
1½ in.	3/4	4/10	6/2	8/7	11/5	14/3	17/1
1 in.	4/6	6/4	8/1	11/6	15/3	19/2	23/-

Carriage Paid on orders above 70/- value.

THE "MODEL" COOP.

Acknowledged the best Coop and Run on the market.

	Per doz.
4 ft. long, 2 ft. wide, 2 ft. high	10/6 .. 120/-
6 ft. „ 2 ft. „ 2 ft. „	13/6 .. 155/-

THE "SUCCESS" POULTRY HOUSE AND RUN.

Undoubtedly one of the cheapest lines ever put before the Poultry World. Built in sections.

8 ft. long, 3 ft. wide, 3½ ft. high	22/6
10 ft. „ 3 ft. „ 3½ ft. „	27/6

PRICE LISTS POST FREE.

SMITH & CO.,
MANUFACTURERS,
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The J.M.D. Challenge



FOSTER MOTHER.

THE J.M.D. PATENT TREBLE-FLUED INCUBATOR.

Well made, reliable, giving pure atmosphere and unvarying exactitude of temperature. 50-egg, **67/6**; 100-egg, **80/-**. **J.M.D. Challenge Foster Mother,** scientific, ventilated to perfection, free from fumes, etc. **37/6 carriage paid.** Send a p.-c. for our Handsome Illustrated Catalogue. it will well repay you.

J.M.D. POULTRY APPLIANCE CO. (Dept. P.R.), **BLACKBURN.**

The J.M.D. Treble-Flued



HYDRO INCUBATOR.

TRADE NOTICES.

Stirlingshire Poultry Farm.

Mr. Robert Miller, of the Stirlingshire Poultry Farm, Denny, N.B., has sent us his catalogue for 1909. Beginning with a condensed report of his trade for last year, which shows a remarkable increase on that of the one before, the booklet gives full details of the stock, foods, and appliances in which Mr. Miller deals. He has paid special attention to Leghorns for chiefly utility purposes—he is essentially a utility breeder—and about two years ago was successful in evolving the Exchequer variety of this breed. A very large trade in day-old chicks is a feature of the establishment; and it is pointed out that all birds hatched and reared in the severe Stirlingshire climate will probably thrive anywhere on earth. Photographic views of the plant and line drawings of fowls and appliances illustrate the catalogue, which contains, moreover, some useful advice to poultry keepers.

The Liverine Company

Calls our attention to the increasing output of the various specialities with which the company is concerned. Chief among these may be mentioned "Liverine," which was invented by Mr. Alderman Viney twenty years ago, in connection with Irish biscuits for dogs; clover meal, which, after being used in a rough state in America for twenty-five years, was perfected by "Liverine," Limited; meat meal, green bone, bone meal, grits and shell, and various medicines for stock. A great speciality of the firm is their celebrated health grit for pigeons.

Light Brahmas.

We have received from Mr. Sydney E. Fletcher his catalogue and price list of Light Brahmas. Mr. Fletcher is a member of the Brahma Club and the Cochin Club, and the representative of the Derbyshire branch of the Poultry Club. His address is "The Hollies," 247, Osmaston-road, Derby.

Midland Railway Company.

Those who contemplate a holiday in the coming spring should have their attention drawn to the travel facilities afforded by the Midland Railway Company, and to the comprehensive list of hotels and apartments published in the company's handbook. This company was the pioneer in regard to many modern improvements in railway accommodation that are now familiar enough to the public, and a high standard of efficiency has been maintained in the working of its system. A glance at the number of places that are tapped by the system and its connections is sufficient to show the extent and importance of the company's operations. The route to Ireland and the Isle of Man, viâ Heysham, is among the more recent acquisitions, and, with regard to the former, the taking over of certain lines in the north of Ireland now justifies the company's claim that a passenger may travel from London to Londonderry without once leaving Midland territory. The coast resorts of Norfolk and Suffolk are also served by the system, while through bookings to the Continent may be obtained at St. Pancras and other Midland stations.

Mr. Tamlin's Exports.

The following is a list of Mr. Tamlin's exports for January, 1909: Twenty-six 200-incubators, twenty-six 60-incubators, seven 100-incubators, two 100-foster mothers, to Mons. Andre Masson, France. Twenty-six 200-incubators, forty-five 100-incubators, twenty-four 100-foster mothers, to Mr. Fletcher Bradley, Canada, per ss. Montezeuma. Eight 60-incubators, to Salisbury, Rhodesia, per order of J.

When answering Advertisements please mention THE ILLUSTRATED POULTRY RECORD.

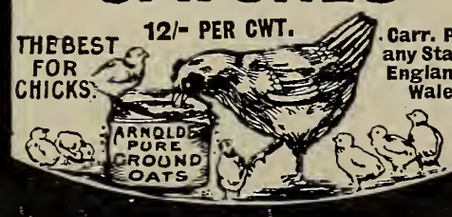
THE EARLY BIRD CATCHES

SAMPLES & PRICE LISTS FREE.

12/- PER CWT.

THE BEST FOR CHICKS.

Carr. Paid any Station England & Wales.



W. ARNOLD & SONS. PADDOCK WOOD KENT.

ARNOLD'S GROUND OATS

Dry Chick Food containing all the most useful seeds for Young Chicks 12/- and 14/- per cwt. 60 years experience has taught us what the chicken rearer needs.

Stephens, Limited, per ss. Umgeni. One 200-incubator, two 100-foster mothers, to Mr. J. T. Chown, Natal, ss. Saxon. Two 100-incubators, four 60-foster mothers, to Mr. S. A. Limpenny, Mauritius, per ss. Tintagel Castle. One 100-incubator, one 60-incubator, to Mr. S. Chubb, Colombo, per ss. Simla. Two 200-incubators to Mr. P. Western, Hong Kong, per ss. Kamagura Maru. Five 100-incubators, to Mr. S. Thompson, Jamaica, per ss. Port Royal. It will be noted from the above that the principal shipments during January were made to France and Canada, and were not so assorted as usual.

An Attractive Catalogue.

We have received a copy of Mr. A. E. W. Phipps' 1909 Catalogue, an extremely useful and interesting publication. Full information is given regarding the firm's specialities, which are, however, so well known as to require no particular description. It is printed on fine art paper, has a stiff cover, and is crammed full with illustrations. Special attention is drawn to the fact that Mr. Phipps has been awarded no fewer than 54 Gold and Silver Medals for his poultry appliances, a striking recommendation in itself. A copy of this extremely attractive catalogue will be sent free, and we advise our readers to secure one. Mr. Phipps' address is Midland Works (No. 3), Harborne, Birmingham.

A Specialist in Wire Netting.

Mr. T. Charles, of 10, Albert Embankment, London, whose specialities in wire netting, fencing wire, galvanised corrugated sheets, and fencing and hurdles, are so well known, has just issued his Catalogue for 1909, and favours us with a copy. It is full of useful information, and as the prices are given in plain figures in all cases, no difficulty need be experienced by those requiring these goods in the direction of cost. We can recommend our readers to send for a copy, which will be forwarded free on application.

RAILWAY ARRANGEMENTS.

Amalgamation of Great Northern, Great Central, and Great Eastern London Receiving and Booking Offices.—The Great Northern, Great Central, and Great Eastern Companies announce that from January 1 the undermentioned duplicate booking and receiving offices in London have been closed, the business being transferred to adjacent offices as under:

G.N. Office, 80, Bishopsgate-street, transferred to G.E. Office, High-street, Shoreditch, and G.N. Office, 235 and 237, Old-street.

G.E. Office, 215, Edgware-road, transferred to G.N. Office, 169, Edgware-road.

G.E. Office, 353, Upper-street, Islington, transferred to G.C. Office, 341, Upper-street.

G.C. Office, 105 and 107, High-street, Borough, transferred to G.N. office, "George Inn," and 75, High-street, Borough.

G.E. Office, 120, Brompton-road, transferred to G.N. Office, 126, Brompton-road.

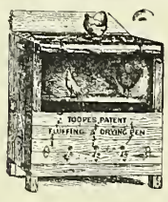
G.E. Office, Magnus House, Monument-square, transferred to G.C. Office, Dalmeny House, Monument-square.

Also from the same date, the present Great Northern and Great Central joint booking and receiving offices, and the majority of the Great Northern, Great Central, and Great Eastern booking and receiving offices in London, formerly separately owned, have come under the management of the three companies, and these offices will, with one or two exceptions, which will be notified, all deal with matters connected with the issue of passenger tickets, and the collection and forwarding of goods and parcels traffic on behalf of the Great Northern, Great Central, and Great Eastern Companies.

Passengers between London and the North have for the one fare the advantage of alternative routes when booking by either the Great Northern, the Great Central, or the Great Eastern Companies.

PATENT DRYING MACHINE

For Drying and Preparing Poultry for Show.



DO NOT LET YOUR CHICKENS DIE!

CHARLES TOOPE & SONS,

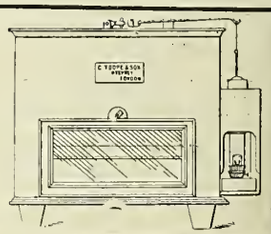
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FOXCOTE, STOURBRIDGE. MARCH 20, 1908.

I am now using your Ovary Tonic on my early hatched chicks, and it is bringing them on wonderfully well. **I have never had them do so well before.**

FRANK BLOOMER.

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BENTHAM POULTRY YARDS, BENTHAM. FEB. 4, '09.

I have given your Ovary Tonic a good trial, both for the production of eggs, and as a tonic for bringing chickens rapidly on. **I am recommending it to all my friends.**

JAMES TURNER.

Prices: 2s. size by post **2s. 4d.** In bulk **15s.** per ½-gallon (equal to 10 2/- bottles); **25s.** per gallon. Carriage paid nearest Railway Station, which please mention. Of all corn dealers, or direct from—

LEONARD SMITH & CO., LTD.

POULTRY EXPERTS,

60, Bromsgrove St., Birmingham.

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